

11/628659

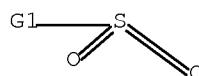
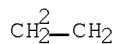
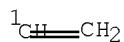
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L31 24 S L26 OR L30
SAVE TEMP L31 HAM659HCAP/A

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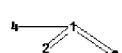
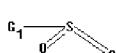
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L2 STR



G1 [@1], [@2]

Structure attributes must be viewed using STN Express query preparation:

Uploading L2.str



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ring nodes :

12 13 14 15 16 17

chain bonds :

1-2 1-3 1-4 5-6 7-8

ring bonds :

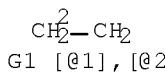
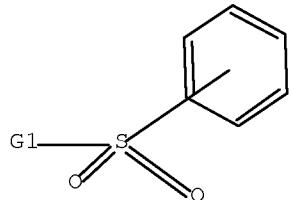
11/628659

12-13 12-17 13-14 14-15 15-16 16-17
exact/norm bonds :
1-2 1-3 1-4
exact bonds :
5-6 7-8
normalized bonds :
12-13 12-17 13-14 14-15 15-16 16-17

G1:[*1], [*2]

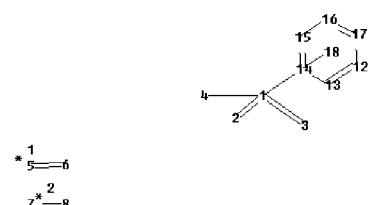
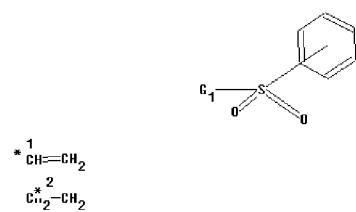
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13:Atom 14:Atom 15:Atom 16:Atom 17:Atom

L4 320388 SEA FILE=REGISTRY SSS FUL L2
L5 STR



Structure attributes must be viewed using STN Express query preparation:

Uploading L3.str



chain nodes :

11/628659

1 2 3 4 5 6 7 8
ring nodes :
12 13 14 15 16 17
chain bonds :
1-2 1-3 1-4 5-6 7-8
ring bonds :
12-13 12-17 13-14 14-15 15-16 16-17
exact/norm bonds :
1-2 1-3 1-4
exact bonds :
5-6 7-8
normalized bonds :
12-13 12-17 13-14 14-15 15-16 16-17

G1:[*1],[*2]

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 12:CLASS
13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom

L7 81379 SEA FILE=REGISTRY SUB=L4 SSS FUL L5
L8 15842 SEA FILE=HCAPLUS ABB=ON PLU=ON L7
L9 106 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 AND 45/SC, SX
L10 25967 SEA FILE=HCAPLUS ABB=ON PLU=ON LEATHER+OLD, UF/CT
L11 52 SEA FILE=HCAPLUS ABB=ON PLU=ON L9 AND L10
L13 67221 SEA FILE=HCAPLUS ABB=ON PLU=ON (DYE# OR DYEING#) (2A)
(REACT? OR AZO? OR POLYAZO?)
L15 50 SEA FILE=HCAPLUS ABB=ON PLU=ON L11 AND L13
L16 50 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND L10
L17 50 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND (LEATHER?)
L18 50 SEA FILE=HCAPLUS ABB=ON PLU=ON L16 OR L17
L19 47 SEA FILE=HCAPLUS ABB=ON PLU=ON L18 AND (AY<2005 OR PY<2005
OR PRY<2005)
L21 4291 SEA FILE=HCAPLUS ABB=ON PLU=ON "REACTIVE DYEING"+OLD/CT
L22 7828 SEA FILE=HCAPLUS ABB=ON PLU=ON REACTIVE (L) DYEING
L24 15 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 AND L21
L25 24 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 AND L22
L26 24 SEA FILE=HCAPLUS ABB=ON PLU=ON L24 OR L25
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L28 267 SEA FILE=REGISTRY ABB=ON PLU=ON L27 AND N/ELS
 L29 209186 SEA FILE=HCAPLUS ABB=ON PLU=ON L28
 L30 24 SEA FILE=HCAPLUS ABB=ON PLU=ON L26 AND L29
 L31 24 SEA FILE=HCAPLUS ABB=ON PLU=ON L26 OR L30

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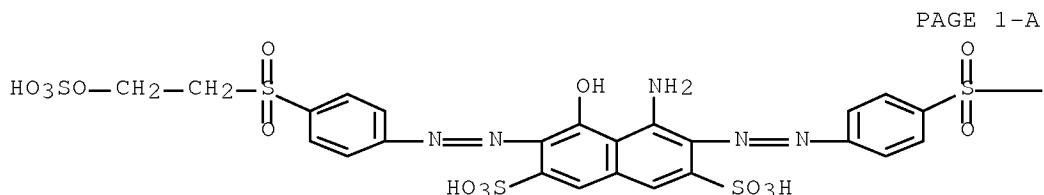
L31 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2005:1021420 HCAPLUS Full-text
 DOCUMENT NUMBER: 143:308063
 TITLE: Method for improved dyeing of genuine
 leather with reactive dyes
 INVENTOR(S): Kanbai, V. A.; Bulgakova, I. V.; Zolina, L. I.;
 Azarenkova, M. A.
 PATENT ASSIGNEE(S): Moskovskii Gosudarstvennyi Universitet Dizayna i
 Tekhnologii, Russia
 SOURCE: Russ., No pp. given
 CODEN: RUXXE7
 DOCUMENT TYPE: Patent
 LANGUAGE: Russian
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RU 2260643	C2	20050920	RU 2003-135588	20031210 <--
PRIORITY APPLN. INFO.:			RU 2003-135588	20031210 <--
AB	A method for dyeing genuine leather with reactive dyes comprises neutralization of semifinished leather, reactive dyeing and subsequent fixation with an alkaline reagent. Neutralization is carried out using sodium bicarbonate in presence of 4.5-5.0% of Deep Dyeing preparation, dyeing is achieved with 2.5-5% of reactive dye at 3.4-3.5 pH in the presence of 0.9-1.2 g/L of alizarin oil, and fixation is performed simultaneously with fatliquoring at 8.5-8.9 pH with 1.3-1.8% of sodium hydrocarbonate and 1.8-2.2% of Polinap AD in the fatliquoring composition which is used at 3.8-4.2%; all concns. are based on leather weight. Dyed leather is rinsed by 0.8-1.2% solution of nonionic surfactant, such as Neonol AF 9-10. The described method results in deep interlocking of reactive dyes with leather, even distribution of color with excellent color fastness, and dyed leather goods have improved chemical and environmental resistance.			
IT	9003-05-8, Polyacrylamide RL: MOA (Modifier or additive use); USES (Uses) (cationic; method for dyeing leather with reactive dyes resulting in improved color fastness)			
RN	9003-05-8 HCAPLUS			
CN	2-Propenamide, homopolymer (CA INDEX NAME)			

CM 1

CRN 79-06-1
CMF C3 H5 N O

IT 17095-24-8, Reactive black 4ST
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (method for dyeing leather with reactive
 dyes resulting in improved color fastness)
 RN 17095-24-8 HCPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[2-[4-[2-
 (sulfooxy)ethyl]sulfonyl]phenyl]diazenyl-, sodium salt (1:4) (CA INDEX
 NAME)

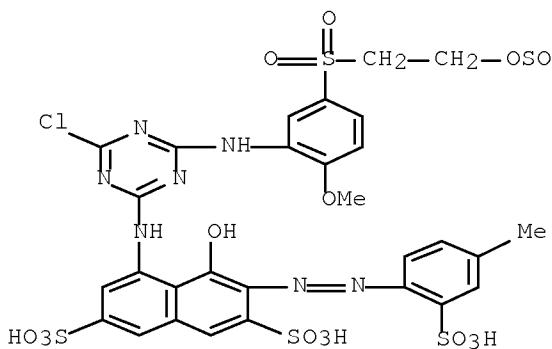


●4 Na

PAGE 1-B

—CH2—CH2—OSO3H

IT 75037-16-0, Reactive Red 4SSh
 RL: TEM (Technical or engineered material use); USES (Uses)
 (method for dyeing leather with reactive
 dyes resulting in improved color fastness)
 RN 75037-16-0 HCPLUS
 CN 2,7-Naphthalenedisulfonic acid, 5-[4-chloro-6-[[2-methoxy-5-[[2-
 (sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-4-hydroxy-
 3-[2-(4-methyl-2-sulfophenyl)diazenyl]-, sodium salt (1:4) (CA INDEX
 NAME)



●4 Na

IC ICM D06P003-32
 ICS D06P003-10

CC 45-2 (Industrial Organic Chemicals, Leather, Fats, and Waxes)

ST excellent dye fixation color fastness leather reactive dyeing

IT Leather
 (dyeing of; method for dyeing leather with reactive dyes resulting in improved color fastness)

IT Reactive dyes
 (for leather; method for dyeing leather with reactive dyes resulting in improved color fastness)

IT Neutralization
 (leather surface; method for dyeing leather with reactive dyes resulting in improved color fastness)

IT Polyesters, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (method for dyeing leather with reactive dyes resulting in improved color fastness)

IT Surfactants
 (nonionic; method for dyeing leather with reactive dyes resulting in improved color fastness)

IT Reactive dyeing
 (process for leather; method for dyeing leather with reactive dyes resulting in improved color fastness)

IT Castor oil
 RL: NUU (Other use, unclassified); USES (Uses)
 (sulfated; method for dyeing leather with reactive dyes resulting in improved color fastness)

IT 9003-05-8, Polyacrylamide
 RL: MOA (Modifier or additive use); USES (Uses)
 (cationic; method for dyeing leather with reactive dyes resulting in improved color fastness)

IT 37205-87-1, Neonol AF 9-10 737791-82-1, Polinap AD 864876-39-1, Deep Dyeing
 RL: NUU (Other use, unclassified); USES (Uses)
 (method for dyeing leather with reactive dyes resulting in improved color fastness)

IT 17095-24-8, Reactive black 4ST
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (method for dyeing leather with reactive
 dyes resulting in improved color fastness)

IT 75037-16-0, Reactive Red 4SSh 864876-58-4,
 Reactive Deep Black KT 864876-73-3, Reactive Deep
 Black 4ST 864876-74-4, Reactive Golden Yellow 43
 RL: TEM (Technical or engineered material use); USES (Uses)
 (method for dyeing leather with reactive
 dyes resulting in improved color fastness)

IT 144-55-8, Sodium bicarbonate, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (neutralization and fixation agent; method for dyeing
 leather with reactive dyes resulting in
 improved color fastness)

L31 ANSWER 2 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2005:460022 HCPLUS Full-text
 DOCUMENT NUMBER: 143:154896
 TITLE: Compositions and preparation of azo dark
 blue dye for dyeing fabric and
 leather
 INVENTOR(S): Xi, Xiang; Wu, Jinglei; Li, Xingjun
 PATENT ASSIGNEE(S): Shanghai Dyestuff Chemical Plant No.8, Peop. Rep.
 China
 SOURCE: Faming Zhanli Shenqing Gongkai Shuomingshu, No pp.
 given
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

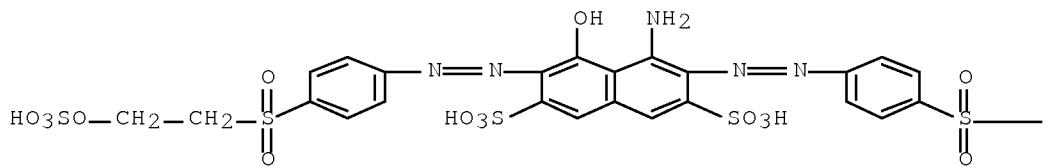
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1511888	A	20040714	CN 2002-160741	20021227 <--
PRIORITY APPLN. INFO.:			CN 2002-160741	20021227 <--

OTHER SOURCE(S): MARPAT 143:154896
 AB The dark blue dye compns., suitable for dyeing and printing cotton, wool,
 silk, leather, synthetic polyamide fiber and other blended fiber fabric, are
 prepared via compounding several kinds of active dyes. The active dye compns.
 have high reaction property and are especially suitable for middle temperature
 dyeing.

IT 55909-92-7 86634-91-5 281656-02-8
 281656-13-1 859503-74-5 859503-75-6
 859503-76-7 859503-77-8
 RL: PEP (Physical, engineering or chemical process); PYP (Physical
 process); TEM (Technical or engineered material use); PROC (Process); USES
 (Uses)
 (compns. of active azo dark blue dyes for dyeing
 fabric and leather)

RN 55909-92-7 HCPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[2-[4-[2-
 (sulfoxy)ethyl]sulfonyl]phenyl]diazenyl] - (CA INDEX NAME)

PAGE 1-A

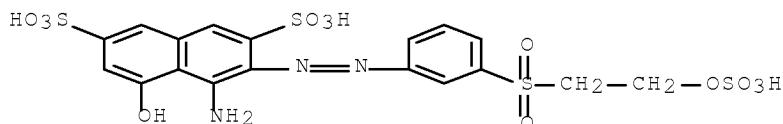


PAGE 1-B

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RN 86634-91-5 HCPLUS

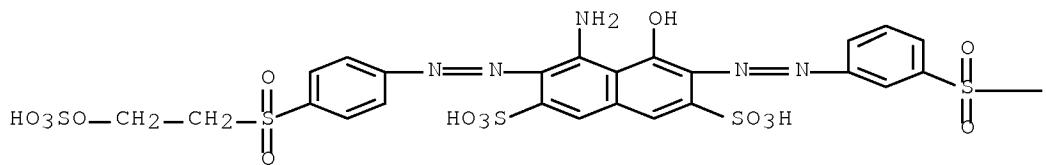
CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[2-[3-[2-(sulfoxyethyl)sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)



RN 281656-02-8 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-6-[2-[3-[2-(sulfoxyethyl)sulfonyl]phenyl]diazenyl]-3-[2-[4-[2-(sulfoxyethyl)sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A



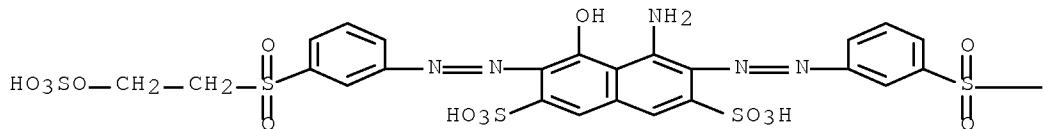
PAGE 1-B

—CH2—CH2—OSO3H

RN 281656-13-1 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[2-[3-[2-
(sulfoxy)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A



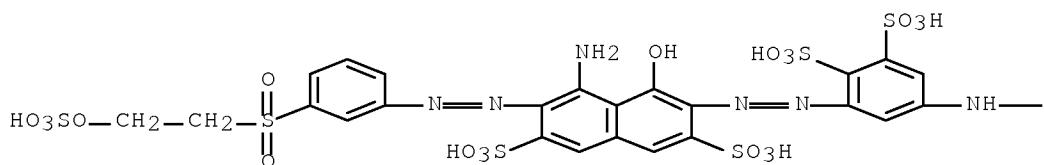
PAGE 1-B

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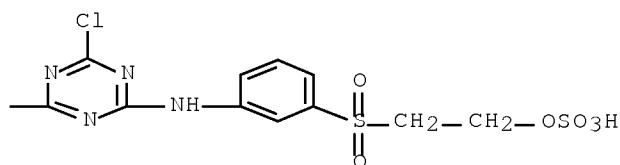
RN 859503-74-5 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[2-[5-[4-chloro-6-[3-[2-
(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2,3-
disulfonylphenyl]diazenyl]-5-hydroxy-3-[2-[3-[2-
(sulfoxy)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



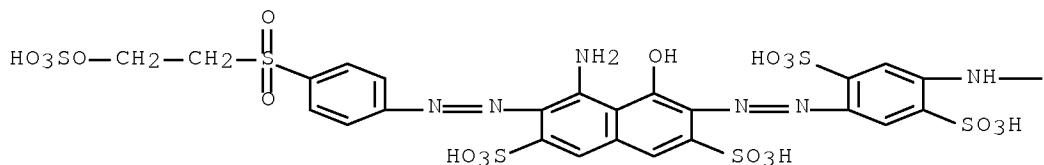
RN 859503-75-6 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[2-[4-[4-chloro-6-[3-[2-
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disulfonylphenyl]diazenyl]-5-hydroxy-3-[2-[3-[2-
(sulfoxy)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

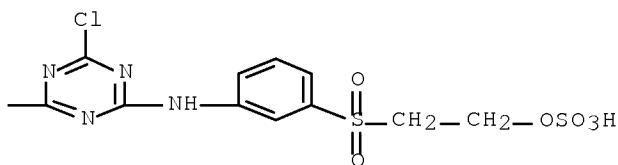
11/628659

(sulfooxyethylsulfonylphenylamino]-1,3,5-triazin-2-yl]amino]-2,5-disulfophenyl]diazenyl]-5-hydroxy-3-[2-[4-[2-(sulfooxyethylsulfonylphenyl)diazenyl]- (CA INDEX NAME)

PAGE 1-A



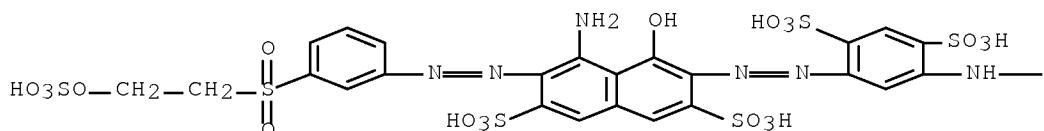
PAGE 1-B



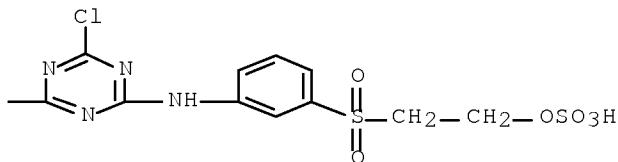
RN 859503-76-7 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[2-[5-[4-chloro-6-[[3-[2-(sulfooxyethylsulfonylphenylamino]-1,3,5-triazin-2-yl]amino]-2,4-disulfophenyl]diazenyl]-5-hydroxy-3-[2-[3-[2-(sulfooxyethylsulfonylphenyl)diazenyl]- (CA INDEX NAME)

PAGE 1-A



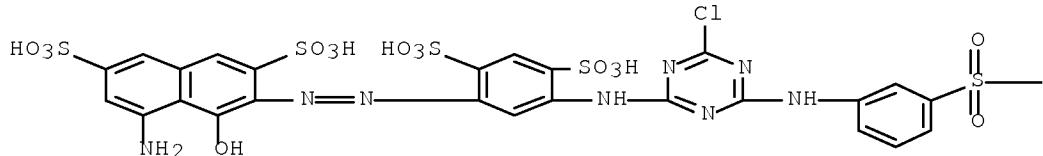
PAGE 1-B



RN 859503-77-8 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 5-amino-3-[2-[5-[[4-chloro-6-[[3-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2,4-disulfophenyl]diazenyl]-4-hydroxy- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

—CH₂—CH₂—OSO₃H

IC ICM C09B067-24

ICS D06P001-38

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 40, 45

ST active azo dark blue dye compn fabric leather dyeing

IT Textiles

(blended; dyeing with active azo dark blue dyes)

IT Pigments, nonbiological

(blue; compns. of active azo dark blue dyes for dyeing fabric and leather)

IT Reactive azo dyes

(compns. of active azo dark blue dyes for dyeing fabric and leather)

IT Textiles

(cotton; dyeing with active azo dark blue dyes)

IT Leather

Silk

Wool

(dyeing with active azo dark blue dyes)

IT Polyamide fibers, processes

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)

(dyeing with active azo dark blue dyes)

IT Dyeing

(of cotton, wool, silk, leather, polyamide fiber and other blended fabric with active azo dark blue dyes)

IT 55909-92-7 86634-91-5 281656-02-8

281656-13-1 859503-74-5 859503-75-6

859503-76-7 859503-77-8

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (compns. of active azo dark blue dyes for dyeing fabric and leather)

L31 ANSWER 3 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2005:460021 HCPLUS Full-text
 DOCUMENT NUMBER: 143:154895
 TITLE: Composition and preparation of yellow azo dye for fabric dyeing
 INVENTOR(S): Xi, Xiangyun; Wu, Jinglei; Cao, Yitian
 PATENT ASSIGNEE(S): Shanghai Dyestuff Chemical Plant No.8, Peop. Rep. China
 SOURCE: Faming Zhanli Shengqing Gongkai Shuomingshu, No pp. given
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1511887	A	20040714	CN 2002-160740	20021227 <--
CN 100357359	C	20071226	CN 2002-160740	20021227 <--

PRIORITY APPLN. INFO.: MARPAT 143:154895

AB The yellow dye compns., suitable for dyeing and printing cotton, wool, silk, leather, synthetic polyamide fiber and other blended fabric, are prepared via compounding several kinds of active azo dyes containing sulfo groups. The dye compns. have high reaction property, bright color and excellent color fastness, and can be used at middle temperature, e.g., at 50-70°.

IT 118739-29-0 142279-62-7 143354-19-2
 163965-63-7 163965-64-8 176791-48-3
 859497-86-2 859497-87-3

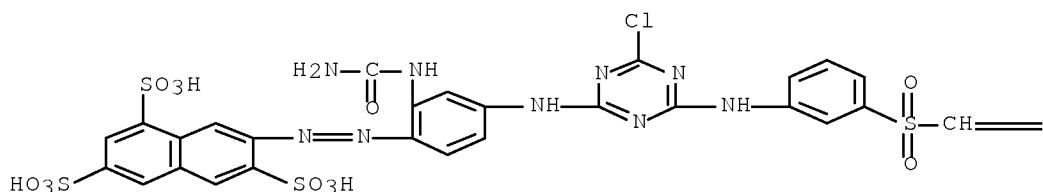
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(composition and preparation of yellow azo dye containing sulfo groups for dyeing of fabric and leather)

RN 118739-29-0 HCPLUS

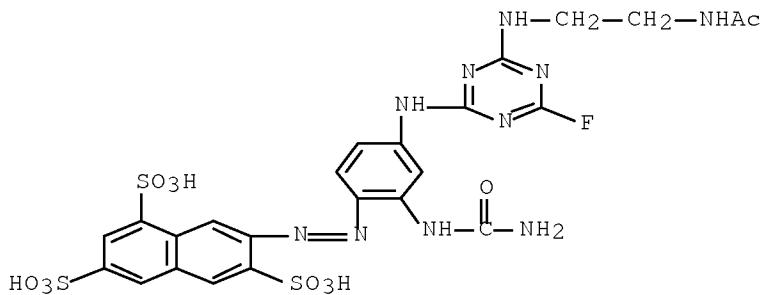
CN 1,3,6-Naphthalenetrisulfonic acid,
 7-[2-[2-[(aminocarbonyl)amino]-4-[[4-chloro-6-[[3-
 (ethenylsulfonyl)phenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]diazenyl]-
 (CA INDEX NAME)

PAGE 1-A

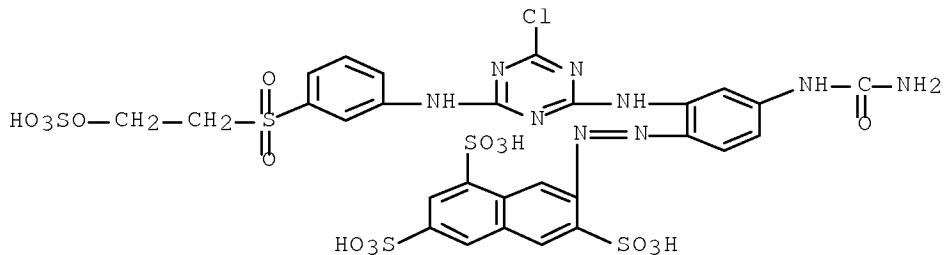


—CH₂

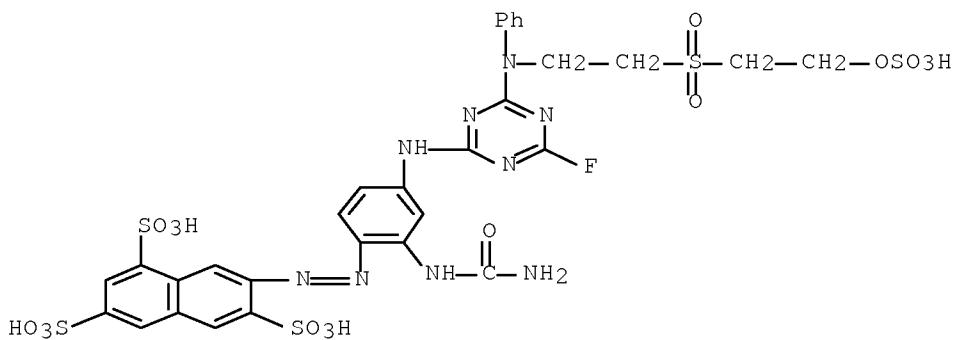
RN 142279-62-7 HCPLUS
 CN 1,3,6-Naphthalenetrisulfonic acid,
 7-[2-[4-[4-[2-(acetylamino)ethyl]amino]-6-fluoro-1,3,5-triazin-2-yl]amino]-2-[(aminocarbonyl)amino]phenyl]diazenyl]- (CA INDEX NAME)



RN 143354-19-2 HCPLUS
 CN 1,3,6-Naphthalenetrisulfonic acid,
 7-[2-[4-[(aminocarbonyl)amino]-2-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]diazenyl]- (CA INDEX NAME)

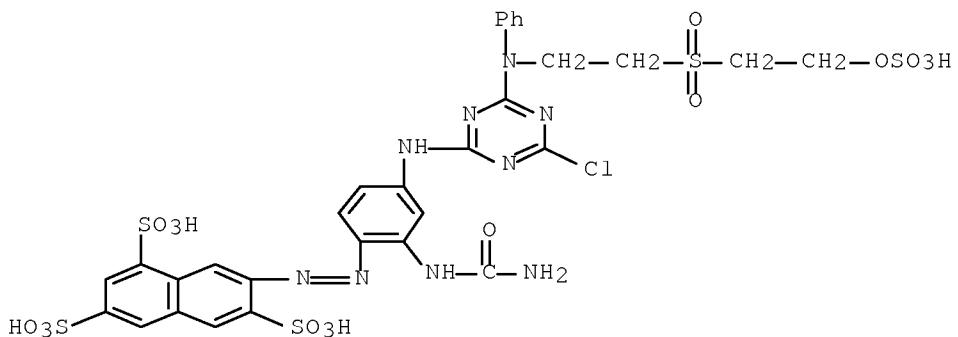


RN 163965-63-7 HCPLUS
 CN 1,3,6-Naphthalenetrisulfonic acid,
 7-[2-[2-[(aminocarbonyl)amino]-4-[[4-fluoro-6-[phenyl[2-[[2-(sulfooxy)ethyl]sulfonyl]ethyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]diazenyl]- (CA INDEX NAME)



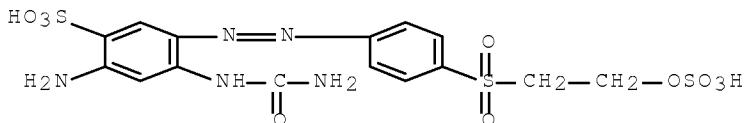
RN 163965-64-8 HCAPLUS

CN 1,3,6-Naphthalenetrisulfonic acid,
7-[2-[2-[(aminocarbonyl)amino]-4-[[4-chloro-6-[phenyl[2-[(2-sulfoxy)ethyl]sulfonyl]ethyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]diazenyl- (CA INDEX NAME)



RN 176791-48-3 HCAPLUS

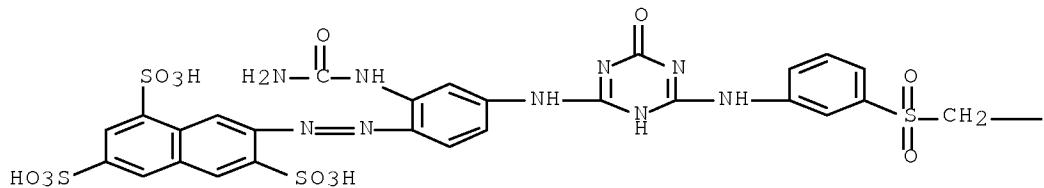
CN Benzenesulfonic acid, 2-amino-4-[(aminocarbonyl)amino]-5-[2-[4-[(2-sulfoxy)ethyl]sulfonyl]phenyl]diazenyl- (CA INDEX NAME)



RN 859497-86-2 HCAPLUS

CN 1,3,6-Naphthalenetrisulfonic acid,
7-[2-[2-[(aminocarbonyl)amino]-4-[[5,6-dihydro-6-oxo-4-[[3-[(2-sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]diazenyl- (CA INDEX NAME)

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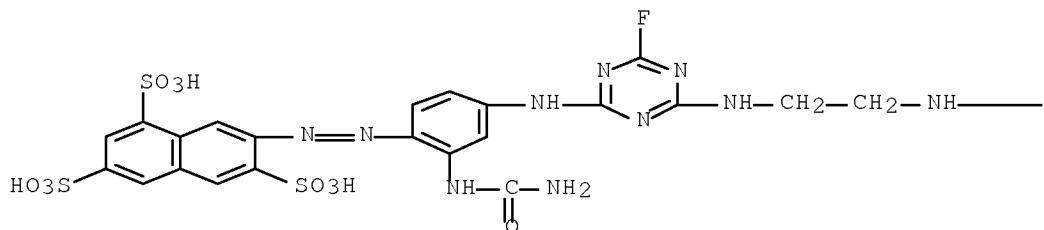
PAGE 1-B

—CH₂—OSO₃H

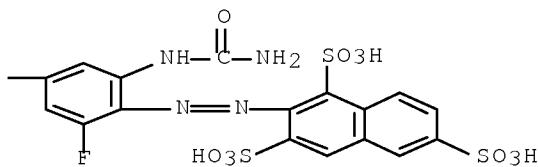
RN 859497-87-3 HCPLUS

CN 1,3,6-Naphthalenetrisulfonic acid,
 2-[2-[2-[(aminocarbonyl)amino]-4-[[2-[[4-[[3-[(aminocarbonyl)amino]-4-[2-(3,6,8-trisulfo-2-naphthalenyl)diazenyl]phenyl]amino]-6-fluoro-1,3,5-triazin-2-yl]amino]ethyl]amino]-6-fluorophenyl]diazenyl]- (CA INDEX NAME)

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PAGE 1-B



IC ICM C09B062-026

ICS C09B067-24; D06P001-38

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 40, 45

ST fabric dyeing azo yellow dye compn
 IT Textiles
 (blend; dyeing with yellow azo dyes)
 IT Reactive azo dyes
 (composition and preparation of yellow azo dye containing sulfo
 groups for dyeing of fabric and leather)
 IT Textiles
 (cotton; dyeing with yellow azo dyes)
 IT Leather
 Silk
 Wool
 (dyeing with yellow azo dyes)
 IT Polyamide fibers, processes
 RL: PEP (Physical, engineering or chemical process); PYP (Physical
 process); PROC (Process)
 (dyeing with yellow azo dyes)
 IT Dyeing
 (of cotton, wool, silk, leather, synthetic polyamide fiber
 and blended fabric with yellow azo dyes)
 IT Pigments, nonbiological
 (yellow; composition and preparation of yellow azo dye containing
 sulfo groups for dyeing of fabric and leather)
 IT 118739-29-0 142279-62-7 143354-19-2
 163965-63-7 163965-64-8 176791-48-3
 859497-86-2 859497-87-3
 RL: PEP (Physical, engineering or chemical process); PYP (Physical
 process); TEM (Technical or engineered material use); PROC (Process); USES
 (Uses)
 (composition and preparation of yellow azo dye containing sulfo
 groups for dyeing of fabric and leather)

L31 ANSWER 4 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2005:460020 HCPLUS Full-text
 DOCUMENT NUMBER: 143:154894
 TITLE: Composition and preparation of azo red
 dye for dyeing fiber and leather
 INVENTOR(S): Xi, Xianyun; Wu, Jinglei; Lu, Jinde
 PATENT ASSIGNEE(S): Shanghai Dyestuff Chemical Plant No.8, Peop. Rep.
 China
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, No pp.
 given
 CODEN: CNXXEV
 DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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CN 1511886	A	20040714	CN 2002-160738	20021227 <--
CN 100404629	C	20080723		

PRIORITY APPLN. INFO.: CN 2002-160738 20021227 <--

OTHER SOURCE(S): MARPAT 143:154894

AB The red dye compns. are suitable for dyeing and printing cotton, wool, silk, leather, synthetic polyamide fiber and other blended fiber fabric and prepared via compounding several kinds of active dyes. The compns. have high reaction property, bright color and excellent color fastness, and are suitable for middle temperature dyeing at 50-70°.

IT 70929-83-8 150176-85-5 774169-37-8
 859500-58-6 859500-59-7 859500-60-0

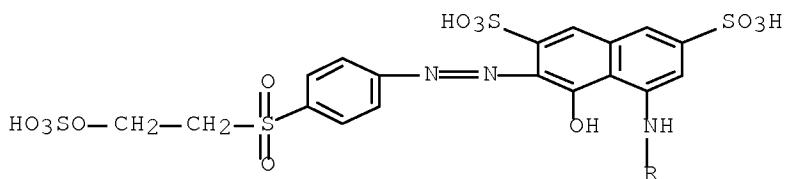
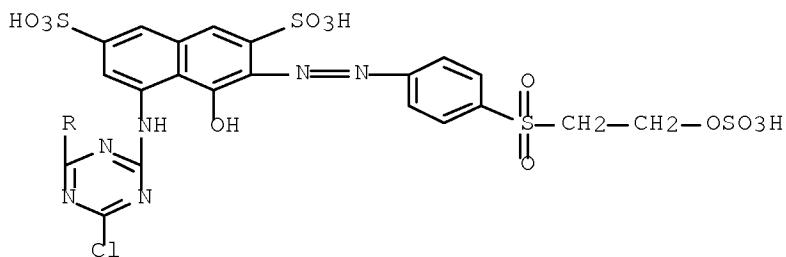
859500-61-1 859500-62-2

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(composition of reactive azo red dye for dyeing fiber and leather)

RN 70929-83-8 HCPLUS

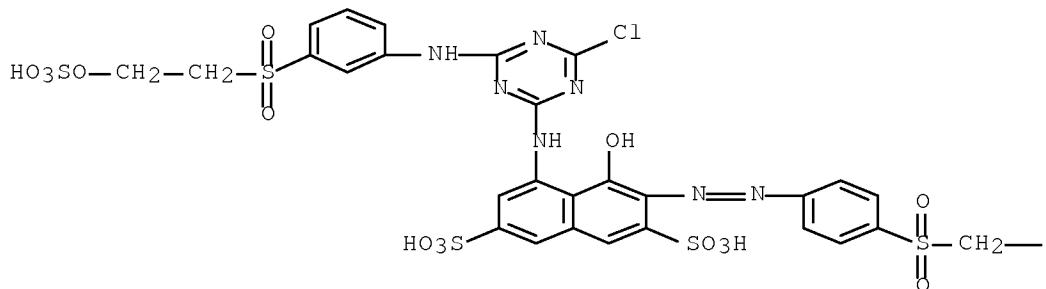
CN 2,7-Naphthalenedisulfonic acid, 4,4'-(6-chloro-1,3,5-triazine-2,4-diyl)diimino]bis[5-hydroxy-6-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]-(9CI) (CA INDEX NAME)



RN 150176-85-5 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 5-[[4-chloro-6-[[3-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-4-hydroxy-3-[[2-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]diazenyl] (CA INDEX NAME)

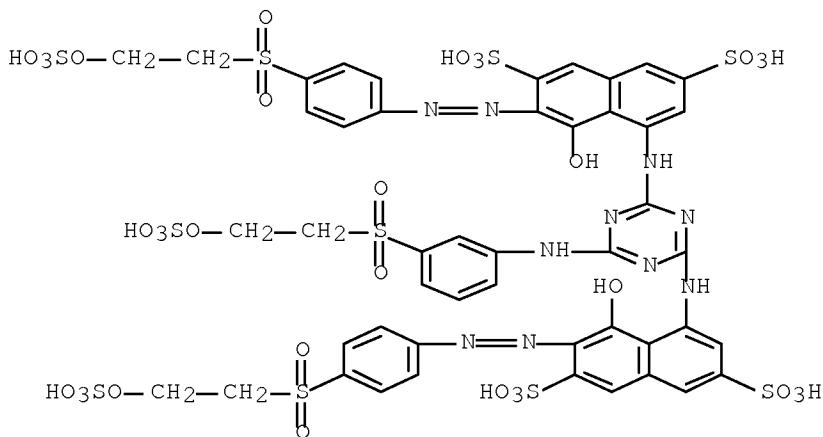
PAGE 1-A



—CH₂—OSO₃H

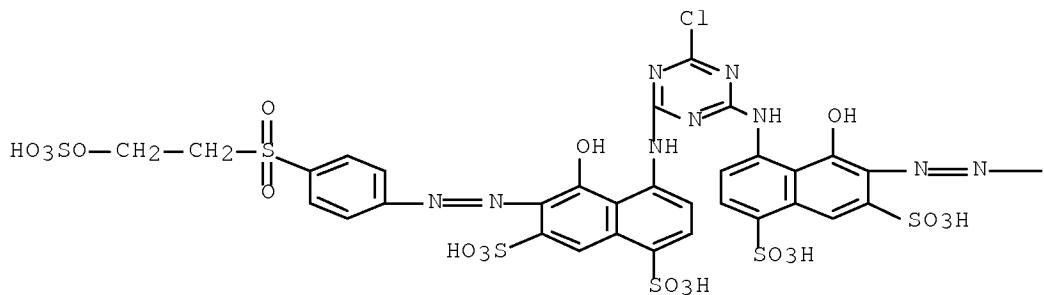
RN 774169-37-8 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 4,4'—[(6—[3—[2—(sulfooxy)ethyl]sulfonyl]phenyl]amino)–1,3,5-triazine-2,4—diyl]diimino]bis[5—hydroxy-6—[4—[2—(sulfooxy)ethyl]sulfonyl]phenyl]azo]—(9CI) (CA INDEX NAME)

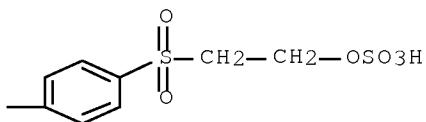


RN 859500-58-6 HCPLUS

CN 1,7-Naphthalenedisulfonic acid, 4,4'—[(6-chloro-1,3,5-triazine-2,4—diyl)diimino]bis[5—hydroxy-6—[2—[4—[2—(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]—(CA INDEX NAME)

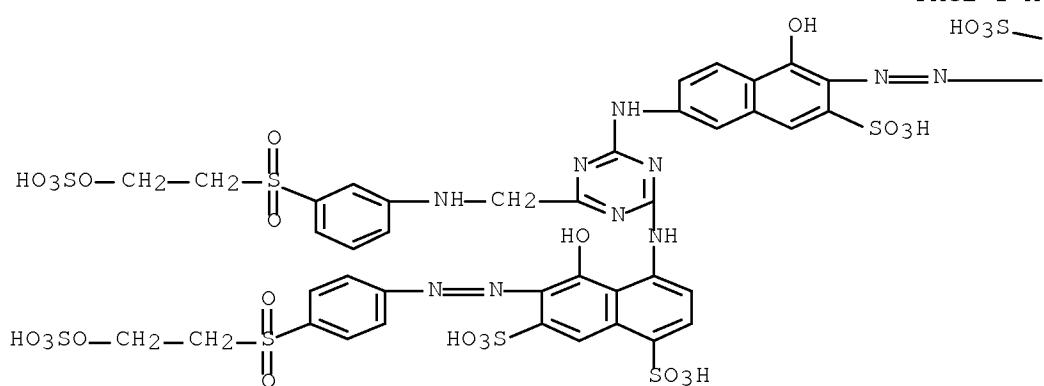


PAGE 1-B

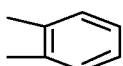


RN 859500-59-7 HCAPLUS
 CN 1,7-Naphthalenedisulfonic acid, 5-hydroxy-4-[[4-[[5-hydroxy-7-sulfo-6-[2-(2-sulfoethyl)sulfonyl]phenyl]amino]-6-[[3-[[2-(sulfoxyethyl)sulfonyl]phenyl]amino]methyl]-1,3,5-triazin-2-yl]amino]-6-[2-[[4-[[2-(sulfoxyethyl)sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

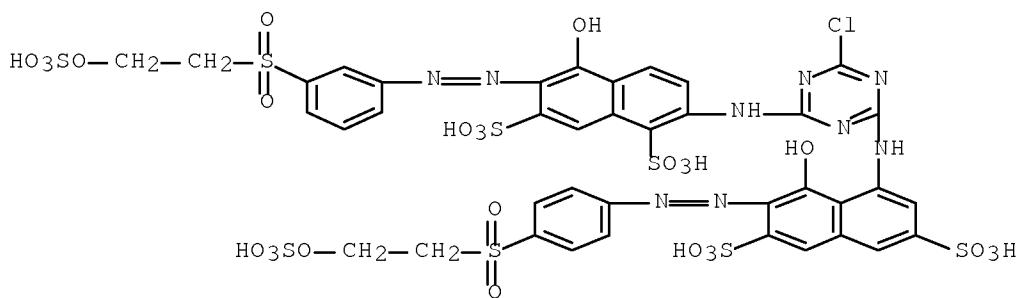
PAGE 1-A



PAGE 1-B

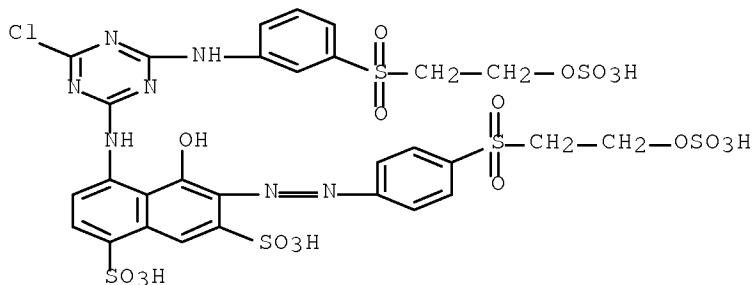


RN 859500-60-0 HCAPLUS
 CN 1,7-Naphthalenedisulfonic acid, 2-[[4-chloro-6-[[8-hydroxy-3,6-disulfo-7-[2-[[4-[[2-(sulfoxyethyl)sulfonyl]phenyl]diazenyl]-1-naphthalenyl]amino]-1,3,5-triazin-2-yl]amino]-5-hydroxy-6-[2-[[3-[[2-(sulfoxyethyl)sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)



RN 859500-61-1 HCAPLUS

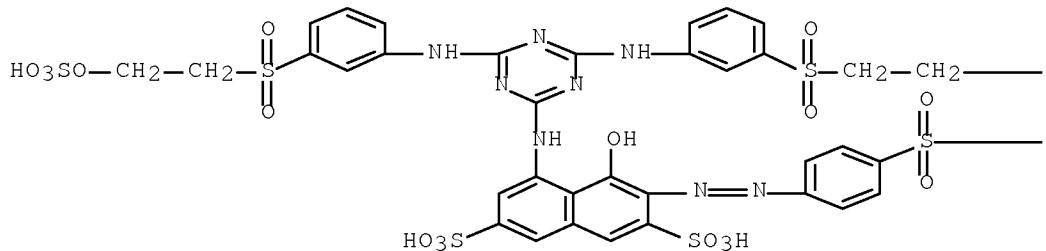
CN 1,7-Naphthalenedisulfonic acid, 4-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-5-hydroxy-6-[[2-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)



RN 859500-62-2 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 5-[[4,6-bis[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-4-hydroxy-3-[[2-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A



— OSO₃H

— CH₂— CH₂— OSO₃H

IC ICM C09B062-026
 ICS C09B067-24; D06P001-38
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
 Sensitizers)
 Section cross-reference(s): 40, 45
 ST active azo red dye compn fiber leather
 dyeing
 IT Textiles
 (blended; dyeing with reactive azo red
 dyes containing sulfo groups)
 IT Reactive azo dyes
 (composition of reactive azo red dye for
 dyeing fiber and leather)
 IT Textiles
 (cotton; dyeing with reactive azo red
 dyes containing sulfo groups)
 IT Leather
 Silk
 Wool
 (dyeing with reactive azo red
 dyes containing sulfo groups)
 IT Polyamide fibers, processes
 RL: PEP (Physical, engineering or chemical process); PYP (Physical
 process); PROC (Process)
 (dyeing with reactive azo red
 dyes containing sulfo groups)
 IT Dyeing
 (of cotton, wool, silk, leather, polyamide fiber and blended
 fiber fabric with reactive azo red dyes)
 IT Pigments, nonbiological
 (red; composition of reactive azo red dye for
 dyeing fiber and leather)
 IT 70929-83-8 150176-85-5 774169-37-8
 859500-58-6 859500-59-7 859500-60-0
 859500-61-1 859500-62-2
 RL: PEP (Physical, engineering or chemical process); PYP (Physical
 process); TEM (Technical or engineered material use); PROC (Process); USES
 (Uses)
 (composition of reactive azo red dye for
 dyeing fiber and leather)

L31 ANSWER 5 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2005:460018 HCPLUS Full-text
 DOCUMENT NUMBER: 143:154893
 TITLE: Composition of bright azo red dyes
 for dyeing fiber and leather
 INVENTOR(S): Xi, Xiangyun; Wu, Jinglei; Li, Xuanji
 PATENT ASSIGNEE(S): Shanghai Dyestuff Chemical Plant No.8, Peop. Rep.
 China

SOURCE: Faming Zhanli Shengqing Gongkai Shuomingshu, No pp.
 given
 CODEN: CNXXEV

DOCUMENT TYPE: Patent
 LANGUAGE: Chinese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1511884	A	20040714	CN 2002-160739	20021227 <--
CN 100404628	C	20080723		

PRIORITY APPLN. INFO.: CN 2002-160739 20021227 <--

OTHER SOURCE(S): MARPAT 143:154893

AB The bright red dye composition suitable for dyeing and printing cotton, wool, silk, leather, synthetic polyamide fiber and other blended fabric are prepared via compounding several kinds of active dyes. The active dye compns. have excellent coloring capacity and are especially suitable for middle temperature dyeing of cotton fabric at 50-70°.

IT 146578-98-5 250152-76-2 859502-95-7
 859502-96-8 859502-97-9 859502-98-0
 859502-99-1 859503-00-7 859503-01-8

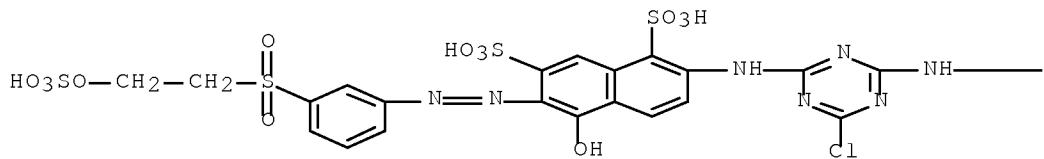
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(composition of azo bright red dyes for dyeing fiber and leather)

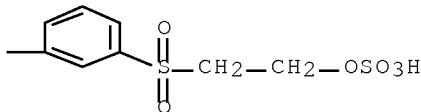
RN 146578-98-5 HCPLUS

CN 1,7-Naphthalenedisulfonic acid, 2-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-5-hydroxy-6-[2-[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A

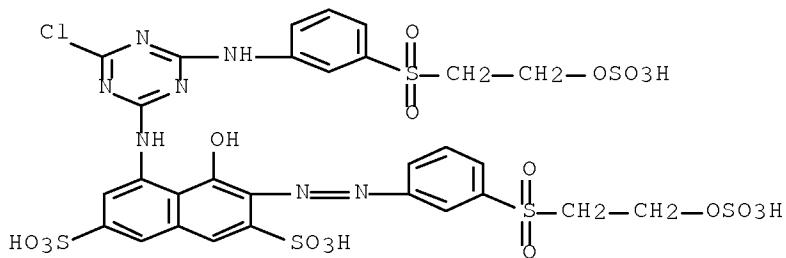


PAGE 1-B



RN 250152-76-2 HCPLUS

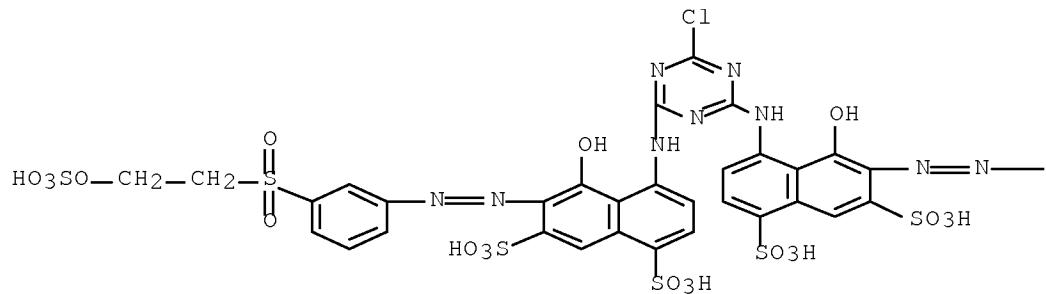
CN 2,7-Naphthalenedisulfonic acid, 5-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-4-hydroxy-3-[2-[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)



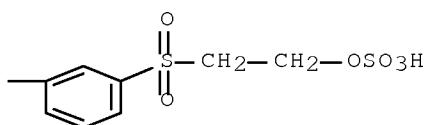
RN 859502-95-7 HCAPLUS

CN 1,7-Naphthalenedisulfonic acid, 4,4'-(6-chloro-1,3,5-triazine-2,4-diyl)bis[5-hydroxy-6-[(3-[(2-sulfoxyethyl)sulfonyl]phenyl)diazenyl]-1-naphthalenyl]amino]- (9CI) (CA INDEX NAME)

PAGE 1-A

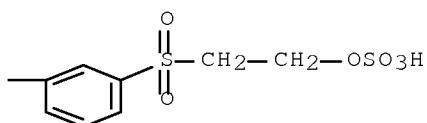
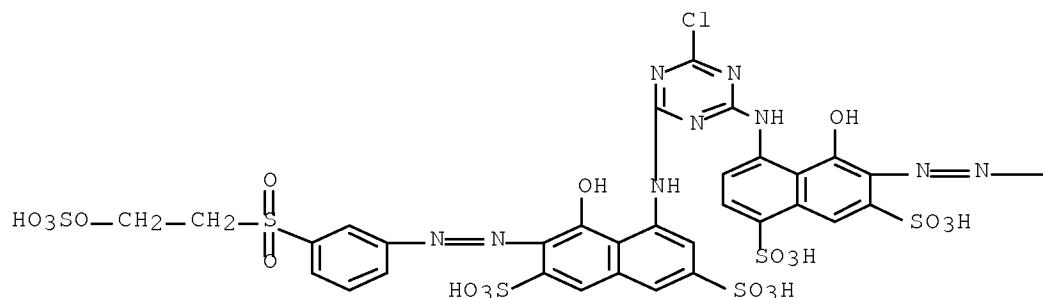


PAGE 1-B

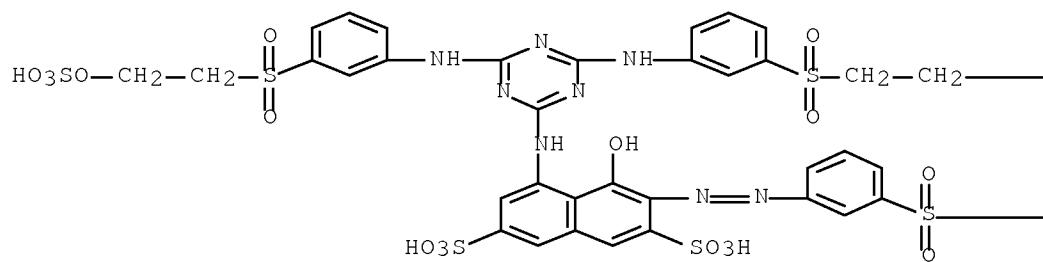


RN 859502-96-8 HCAPLUS

CN 1,7-Naphthalenedisulfonic acid, 4-[(4-chloro-6-[(8-hydroxy-3,6-disulfo-7-[2-[(2-sulfoxyethyl)sulfonyl]phenyl]diazenyl)-1-naphthalenyl]amino)-1,3,5-triazin-2-yl]amino]-5-hydroxy-6-[(2-sulfoxyethyl)sulfonyl]phenyl]diazenyl]- (9CI) (CA INDEX NAME)



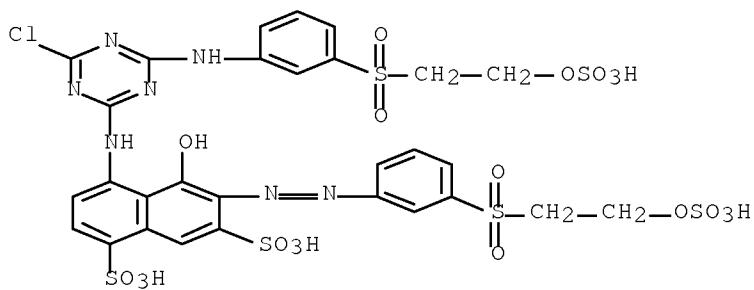
RN 859502-97-9 HCPLUS
 CN 2,7-Naphthalenedisulfonic acid, 5-[[4,6-bis[[3-[[2-
 (sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-4-hydroxy-
 3-[2-[[3-[(2-sulfoethyl)sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)



— OSO₃H— CH₂— CH₂— OSO₃H

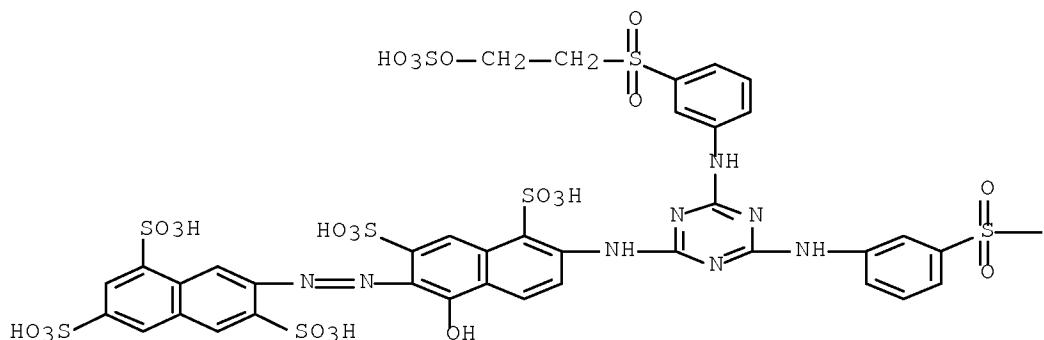
RN 859502-98-0 HCAPLUS

CN 1,7-Naphthalenedisulfonic acid, 4-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-5-hydroxy-6-[2-[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)



RN 859502-99-1 HCAPLUS

CN 1,3,6-Naphthalenetrisulfonic acid, 7-[2-[6-[[4,6-bis[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-1-hydroxy-3,5-disulfo-2-naphthalenyl]diazenyl]- (CA INDEX NAME)

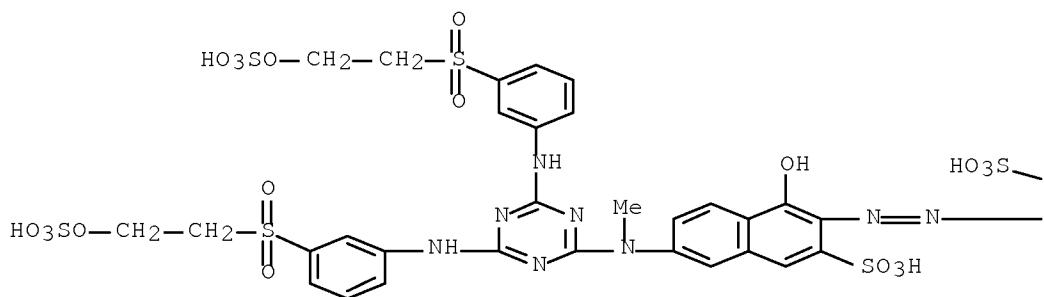


PAGE 1-B

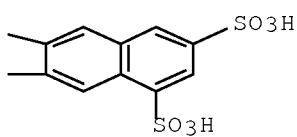


RN 859503-00-7 HCAPLUS
 CN 1,3,6-Naphthalenetrisulfonic acid,
 7-[2-[6-[4,6-bis[[3-[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]methylamino]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A

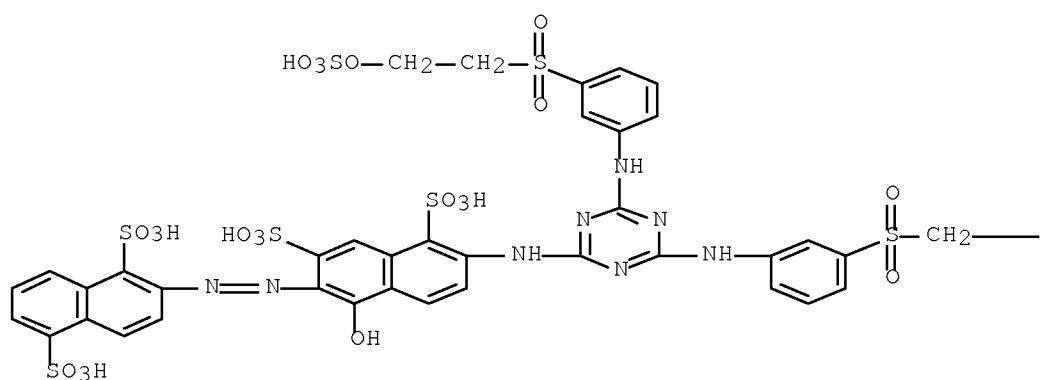


PAGE 1-B



RN 859503-01-8 HCAPLUS
 CN 1,5-Naphthalenedisulfonic acid, 2-[2-[6-[4,6-bis[[3-[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-1-hydroxy-3,5-disulfo-2-naphthalenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A



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—CH₂—OSO₃H

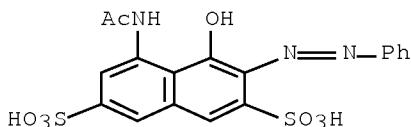
IC ICM C09B062-00
 ICS C09B067-24; D06P001-38
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
 Sensitizers)
 Section cross-reference(s): 40, 45
 ST active bright azo red dye compn fiber leather
 dyeing
 IT Textiles
 (blended; dyeing with azo bright red dyes
)
 IT Reactive azo dyes
 (composition of azo bright red dyes for dyeing
 fiber and leather)
 IT Textiles
 (cotton; dyeing with azo bright red dyes)
 IT Leather
 Silk
 Wool
 (dyeing with azo bright red dyes)
 IT Dyeing
 (of cotton, wool, silk, leather, polyamide fiber and blended
 fabric with azo bright red dyes)
 IT Polyamide fibers, processes
 RL: PEP (Physical, engineering or chemical process); PYP (Physical

process); PROC (Process)
 (of cotton, wool, silk, leather, polyamide fiber and blended
 fabric with azo bright red dyes)

IT Pigments, nonbiological
 (red; composition of azo bright red dyes for dyeing
 fiber and leather)

IT 146578-98-5 250152-76-2 859502-95-7
 859502-96-8 859502-97-9 859502-98-0
 859502-99-1 859503-00-7 859503-01-8
 RL: PEP (Physical, engineering or chemical process); PYP (Physical
 process); TEM (Technical or engineered material use); PROC (Process); USES
 (Uses)
 (composition of azo bright red dyes for dyeing fiber and
 leather)

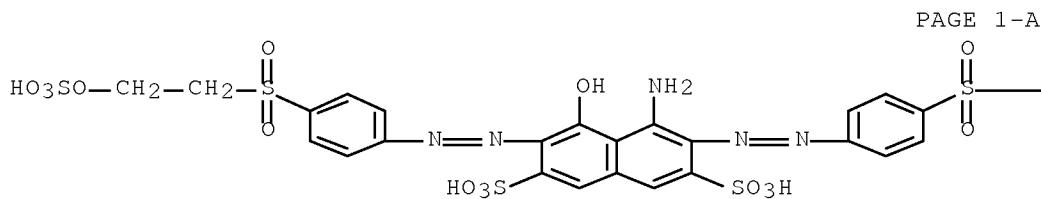
L31 ANSWER 6 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2005:39060 HCPLUS Full-text
 DOCUMENT NUMBER: 143:308006
 TITLE: Effect of vinyl acetate grafting on the dyeability of
 chrome leather
 AUTHOR(S): Mohamed, O. A.; Haroun, A. A.; El-Sayed, N. H.
 CORPORATE SOURCE: Dept. of Chemistry of Tanning Materials and Protein,
 National Research Centre, Cairo, Egypt
 SOURCE: Journal of the Society of Leather Technologists and
 Chemists (2004), 88(6), 231-235
 CODEN: JSLTBY; ISSN: 0144-0322
 PUBLISHER: Society of Leather Technologists and Chemists
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB This study is concerned with enhancing the dyeability of leather by graft
 polymerization with vinyl acetate. The application of a vinyl sulfone
 reactive dye to the grafted leather revealed that vinyl acetate imparted
 addnl. sites to the leather available for attachment of the reactive dye.
 IT 3734-67-6, C.I. Acid Red 1
 RL: TEM (Technical or engineered material use); USES (Uses)
 (Amecid Floxine 2GN, red dye; effect of vinyl acetate grafting on
 dyeing of chrome leather with)
 RN 3734-67-6 HCPLUS
 CN 2,7-Naphthalenedisulfonic acid, 5-(acetylamino)-4-hydroxy-3-(2-
 phenyldiazenyl)-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

IT 17095-24-8, Remazol Black B
 RL: TEM (Technical or engineered material use); USES (Uses)
 (black reactive dye; effect of vinyl acetate
 grafting on dyeing of chrome leather with)
 RN 17095-24-8 HCPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[2-[4-[[2-

(sulfooxyethylsulfonylphenyl)diazetyl-, sodium salt (1:4) (CA INDEX NAME)

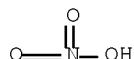


●4 Na

PAGE 1-B

—CH₂—CH₂—OSO₃H

IT 10139-51-2, Ceric ammonium nitrate
 RL: CAT (Catalyst use); USES (Uses)
 (graft polymerization catalyst; in effect of vinyl acetate grafting on
 dyeability of chrome leather)
 RN 10139-51-2 HCAPLUS
 CN Nitric acid, cerium(4+) ammonium salt (6:1:2) (CA INDEX NAME)



●1/6 Ce(IV)

●1/3 NH₃

CC 45-2 (Industrial Organic Chemicals, Leather, Fats, and Waxes)
 Section cross-reference(s): 37
 ST leather vinyl acetate graft polymn dyeability
 IT Leather
 (chrome; effect of vinyl acetate grafting on dyeability of)
 IT Dyeing
 Reactive dyeing
 pH
 (effect of vinyl acetate grafting on dyeability of chrome
 leather)
 IT Polymerization
 (graft, radical; effect of vinyl acetate grafting on dyeability of
 chrome leather)
 IT Polymerization catalysts

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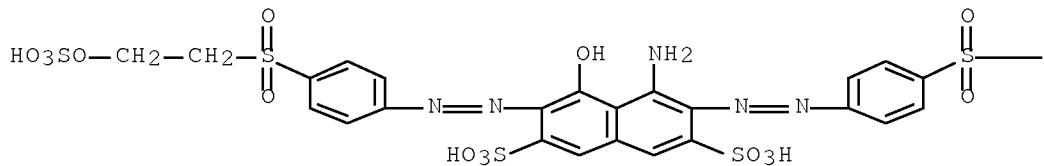
(graft, radical; in effect of vinyl acetate grafting on dyeability of chrome leather)

IT Leather
(wet blue; effect of vinyl acetate grafting on dyeability of)
IT 3734-67-6, C.I. Acid Red 1
RL: TEM (Technical or engineered material use); USES (Uses)
(Amecid Floxine 2GN, red dye; effect of vinyl acetate grafting on dyeing of chrome leather with)
IT 17095-24-8, Remazol Black B
RL: TEM (Technical or engineered material use); USES (Uses)
(black reactive dye; effect of vinyl acetate grafting on dyeing of chrome leather with)
IT 108-05-4DP, Vinyl acetate, polymers with leather, graft
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(effect of vinyl acetate grafting on dyeability of chrome leather)
IT 10139-51-2, Ceric ammonium nitrate
RL: CAT (Catalyst use); USES (Uses)
(graft polymerization catalyst; in effect of vinyl acetate grafting on dyeability of chrome leather)

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 7 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:465254 HCPLUS Full-text
DOCUMENT NUMBER: 142:24862
TITLE: Physical and chemical study of domestic reactive dyes
AUTHOR(S): Zolina, L. I.; Bulgakova, I. V.; Kanbai, V. A.;
Eliseeva, N. A.
CORPORATE SOURCE: MGUDT, Russia
SOURCE: Kozhevenno-Obuvnaya Promyshlennost (2004),
(2), 48-50
CODEN: KOOPAJ; ISSN: 0023-4354
PUBLISHER: OOO "Arina"
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Characteristics of reactive black azo dyes and their performance in leather dyeing are addressed. Dispersion composition, adsorption parameters, and diffusion into gelatine films are determined
IT 17095-24-8, C.I. Reactive Black 5 802914-29-0, Reactive Black 3Sh
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(phys. and chemical characterization of domestic black reactive azo dyes for leather)
RN 17095-24-8 HCPLUS
CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[2-[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazaryl]-, sodium salt (1:4) (CA INDEX NAME)

PAGE 1-A



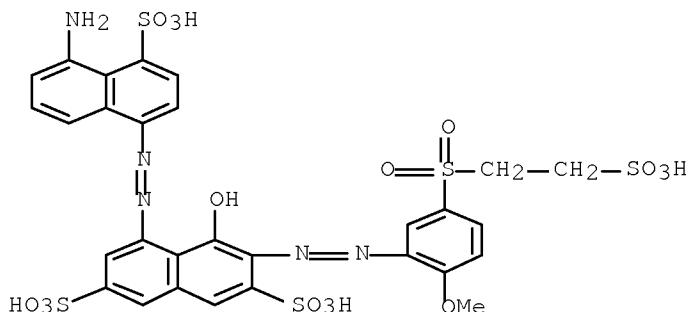
●4 Na

PAGE 1-B

—CH₂—CH₂—OSO₃H

RN 802914-29-0 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 5-[2-(5-amino-4-sulfo-1-naphthalenyl)diazenyl]-4-hydroxy-3-[2-[2-methoxy-5-[(2-sulfoethyl)sulfonyl]phenyl]diazenyl]-, sodium salt (1:4) (CA INDEX NAME)



●4 Na

CC 45-2 (Industrial Organic Chemicals, Leather, Fats, and Waxes)

Section cross-reference(s): 41

ST reactive black azo dye leather

IT Leather

Reactive azo dyes

(phys. and chemical characterization of domestic black reactive azo dyes for leather)

IT 17095-24-8, C.I. Reactive Black 5 802914-29-0, Reactive Black 3Sh

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(phys. and chemical characterization of domestic black reactive azo dyes for leather)

11/628659

L31 ANSWER 8 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:505067 HCPLUS Full-text
DOCUMENT NUMBER: 137:80276
TITLE: Anionic azo dyes and their use on
cotton and leather
INVENTOR(S): Mazza, Jorge
PATENT ASSIGNEE(S): Argent.
SOURCE: U.S. Pat. Appl. Publ., 9 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20020083532	A1	20020704	US 2001-23962	20011218 <--
US 20060150345	A1	20060713	US 2004-881342	20040630 <--
US 20070289072	A1	20071220	US 2007-748371	20070514 <--
PRIORITY APPLN. INFO.:			AR 2000-106734	A 20001218 <--
			US 2001-23962	A2 20011218 <--
			US 2004-881342	B2 20040630 <--

OTHER SOURCE(S): MARPAT 137:80276

AB Anionic azo dyes are obtained which comprise at least one spacer arm bounded to their chemical structure. These anionic coloring agents may be depicted by CA-BE, wherein CA is an anionic coloring agent comprising at least 1 chromophore group and BE is the spacer arm, which has the chemical structure: -(X-R-Z)r, wherein X is a direct link or a group having the formula -S(O)s, wherein s is 0-2; or -NR1-, wherein R1 is H or a C1-10-alkyl group; R is a C1-10 straight or branched alkylene group; Z is a polar group; and r is ≥ 1 . The invention also refers to coloring compns., which comprise at least one anionic coloring agent CA-BE in admixt. with anionic coloring agents which do not have spacer arms. The anionic coloring agents and the coloring compns. containing them may be used to dye cotton and wool substrates, regenerated cellulose, leather, cardboard, and paper. The introduction of spacer arms in the structure of the anionic coloring agents leads to modified anionic coloring agents, which differ from the known coloring agents in their dyeing properties such as strength, tone, and affinity, due to fixation modifications onto the substrate to be dyed. Examples were given for the preparation of acid, reactive, sulfur, and metalized dyes.

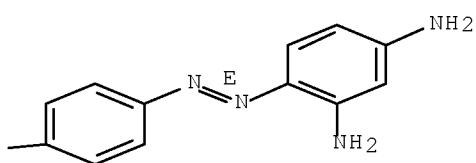
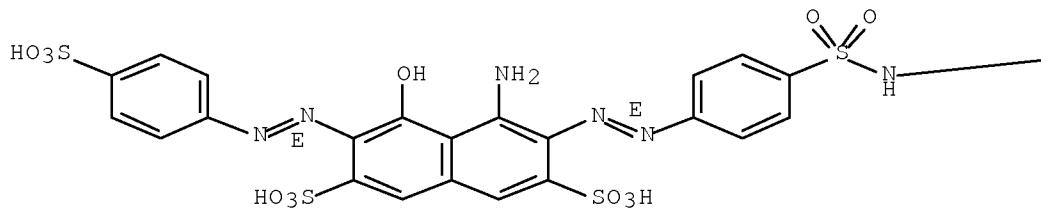
IT 1102416-75-0 1102416-76-1 1102416-77-2
1102416-78-3

RL: PRPH (Prophetic)
(Anionic azo dyes and their use on cotton and
leather)

RN 1102416-75-0 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[(1E)-2-[4-[[4-[(1E)-2-(2,4-diaminophenyl)diazaryl]phenyl]amino]sulfonyl]phenyl]diazaryl]-5-hydroxy-6-[(1E)-2-(4-sulfophenyl)diazaryl]- (CA INDEX NAME)

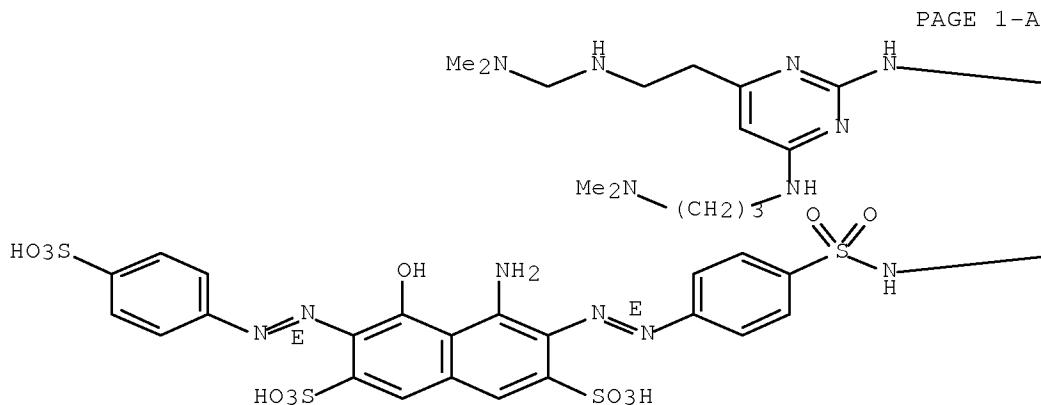
Double bond geometry as shown.

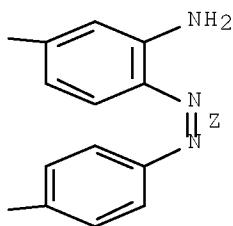


RN 1102416-76-1 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[(1E)-2-[4-[[4-[(1Z)-2-[2-amino-4-[(2-[(dimethylamino)methyl]amino)ethyl]-6-[(3-(dimethylamino)propyl]amino]-2-pyrimidinyl]amino]phenyl]diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-5-hydroxy-6-[(1E)-2-(4-sulfophenyl)diazenyl]- (CA INDEX NAME)

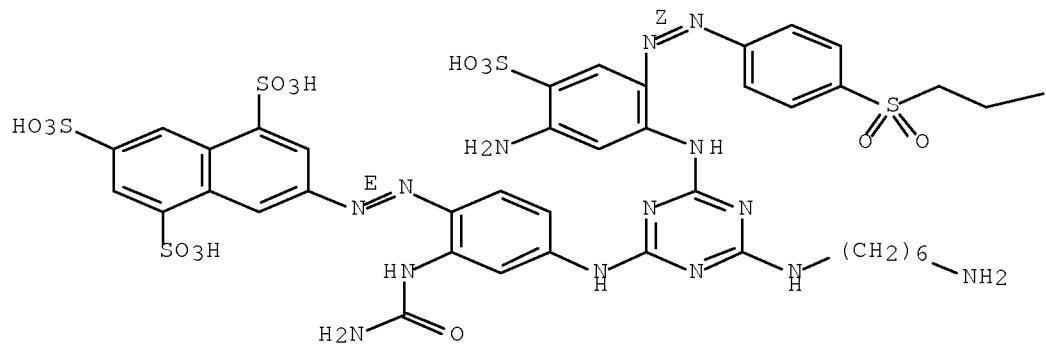
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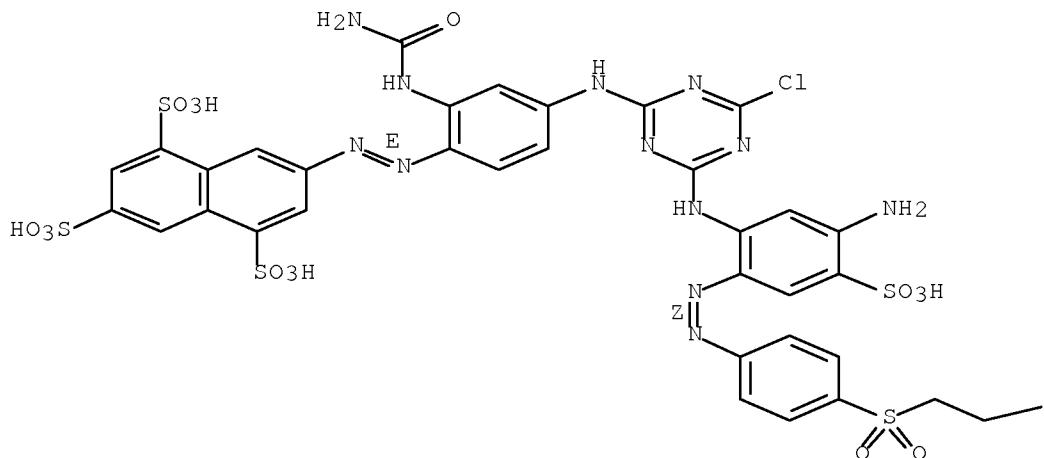
RN 1102416-77-2 HCPLUS
 CN INDEX NAME NOT YET ASSIGNED

Double bond geometry as shown.



RN 1102416-78-3 HCPLUS
 CN INDEX NAME NOT YET ASSIGNED

Double bond geometry as shown.



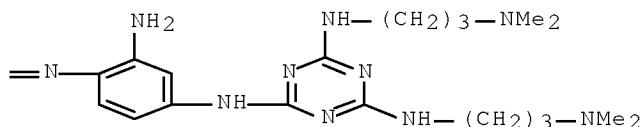
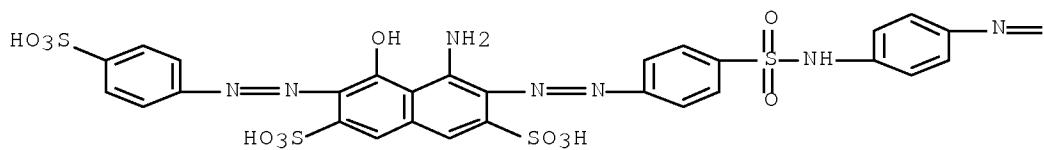
—OSO₃H

IT 440103-78-6P

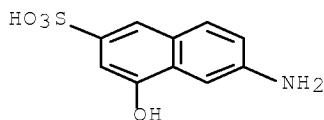
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (acid dye for leather; production of anionic azo dyes with spacer arms)

RN 440103-78-6 HCAPLUS

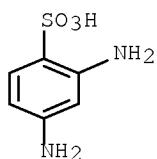
CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[2-[4-[2-[2-amino-4-[(4,6-bis[[3-(dimethylamino)propyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]diazenyl]phenyl]amino)sulfonyl]phenyl]diazenyl]-5-hydroxy-6-[2-(4-sulfophenyl)diazenyl]- (CA INDEX NAME)



IT 90-51-7, 6-Amino-4-hydroxy-2-naphthalenesulfonic acid
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling and diazo component; production of anionic azo dyes with spacer arms)
 RN 90-51-7 HCPLUS
 CN 2-Naphthalenesulfonic acid, 6-amino-4-hydroxy- (CA INDEX NAME)



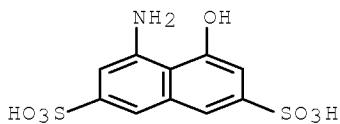
IT 88-63-1, m-Phenylenediamine-4-sulfonic acid 90-20-0,
 4-Amino-5-hydroxy-2,7-naphthalenedisulfonic acid 102-01-2,
 Acetoacetanilide 591-27-5, m-Aminophenol 25711-72-2,
 3-Ureidoaniline
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling component; production of anionic azo dyes with spacer arms)
 RN 88-63-1 HCPLUS
 CN Benzenesulfonic acid, 2,4-diamino- (CA INDEX NAME)



RN 90-20-0 HCPLUS

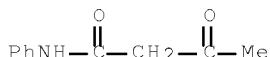
11/628659

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy- (CA INDEX NAME)



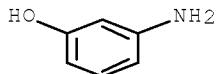
RN 102-01-2 HCAPLUS

CN Butanamide, 3-oxo-N-phenyl- (CA INDEX NAME)



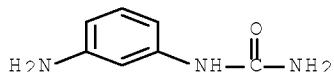
RN 591-27-5 HCAPLUS

CN Phenol, 3-amino- (CA INDEX NAME)



RN 25711-72-2 HCAPLUS

CN Urea, N-(3-aminophenyl)- (CA INDEX NAME)

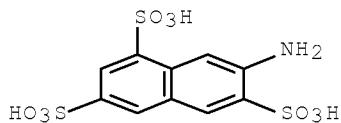


IT 118-03-6, 2-Aminonaphthalene-3,6,8-trisulfonic acid
121-57-3 2494-89-5, 4-(2-Sulfatoethylsulfonyl)aniline
78696-32-9 440103-81-1

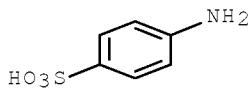
RL: RCT (Reactant); RACT (Reactant or reagent)
(diazo component; production of anionic azo dyes with
spacer arms)

RN 118-03-6 HCAPLUS

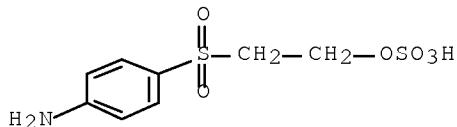
CN 1,3,6-Naphthalenetrisulfonic acid, 7-amino- (CA INDEX NAME)



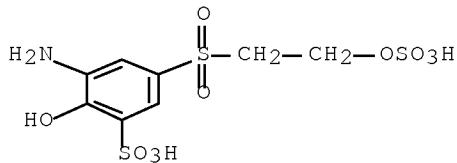
RN 121-57-3 HCPLUS
 CN Benzenesulfonic acid, 4-amino- (CA INDEX NAME)



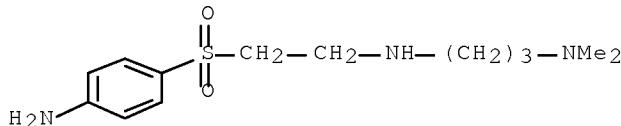
RN 2494-89-5 HCPLUS
 CN Ethanol, 2-[(4-aminophenyl)sulfonyl]-, 1-(hydrogen sulfate) (CA INDEX NAME)



RN 78696-32-9 HCPLUS
 CN Benzenesulfonic acid, 3-amino-2-hydroxy-5-[(2-sulfoxyethyl)sulfonyl]- (CA INDEX NAME)



RN 440103-81-1 HCPLUS
 CN 1,3-Propanediamine, N3-[2-[(4-aminophenyl)sulfonyl]ethyl]-N1,N1-dimethyl- (CA INDEX NAME)



IT 440103-80-0
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

11/628659

(metalized dye for leather; production of anionic azo dyes with spacer arms)

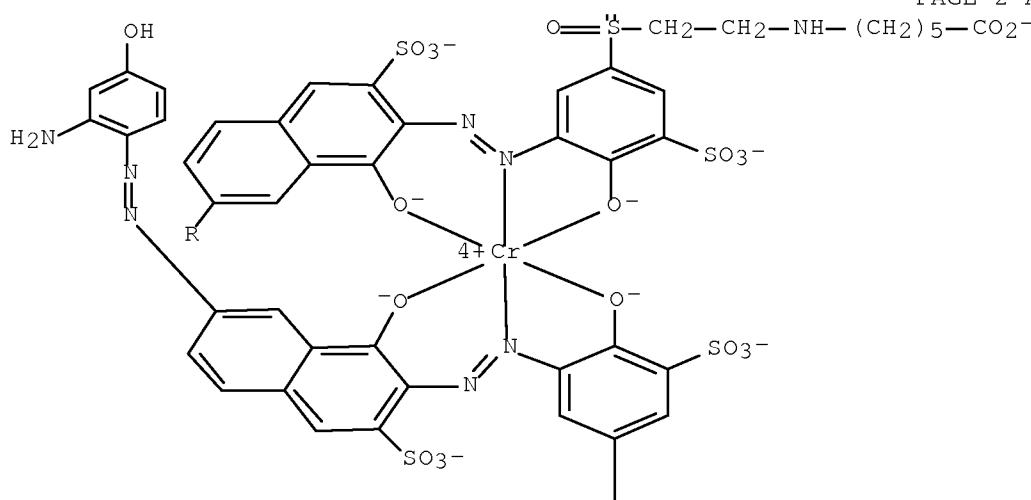
RN 440103-80-0 HCPLUS

CN Chromate(6-), [6-[2-[[3-[7-[(2-amino-4-hydroxyphenyl)azo]-1-(hydroxy- κ O)-3-sulfo-2-naphthalenyl]azo- κ N1]-4-(hydroxy- κ O)-5-sulfophenyl]sulfonyl]ethyl]amino]hexanoato(5-)][6-[2-[[4-(hydroxy- κ O)-3-[[1-(hydroxy- κ O)-7-[[2-oxo-1-[(phenylamino)carbonyl]propyl]azo]-3-sulfo-2-naphthalenyl]azo- κ N1]-5-sulfophenyl]sulfonyl]ethyl]amino]hexanoato(5-)]-, hexahydrogen (9CI) (CA INDEX NAME)

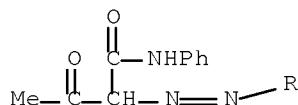
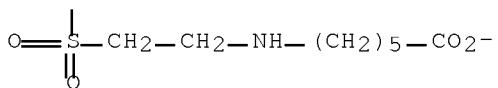
PAGE 1-A



PAGE 2-A



PAGE 3-A

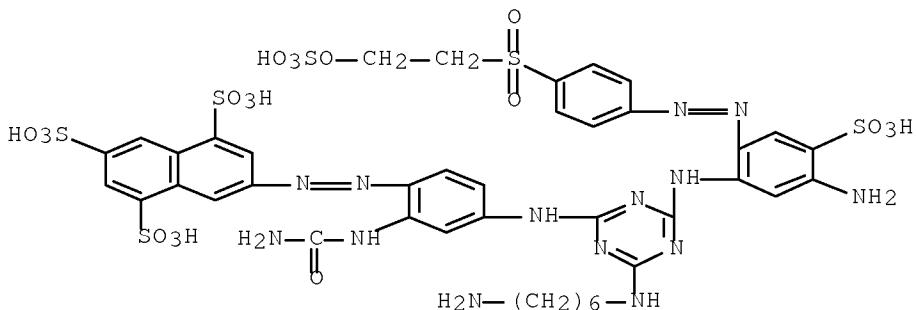
● 6 H⁺

IT 440103-77-5P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (reactive dye for cotton; production of anionic azo dyes with spacer arms)

RN 440103-77-5 HCPLUS

CN 1,3,5-Naphthalenetrisulfonic acid,
 7-[2-[2-[(aminocarbonyl)amino]-4-[(6-aminohexyl)amino]-6-[[5-amino-4-sulfo-2-[2-[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]diazenyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]diazenyl]- (CA INDEX NAME)



IT 60-32-2, ϵ -Aminocaproic acid 108-45-2,
 m-Phenylenediamine, reactions 108-77-0, Cyanuric chloride 109-55-7, N,N-Dimethyl-1,3-propanediamine 124-09-4,
 Hexamethylenediamine, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)

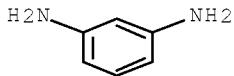
(starting material; production of anionic azo dyes with spacer arms)

RN 60-32-2 HCPLUS

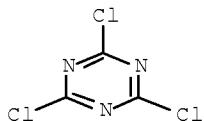
CN Hexanoic acid, 6-amino- (CA INDEX NAME)

H₂N—(CH₂)₅—CO₂H

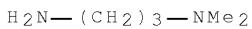
RN 108-45-2 HCAPLUS
CN 1,3-Benzenediamine (CA INDEX NAME)



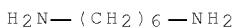
RN 108-77-0 HCAPLUS
CN 1,3,5-Triazine, 2,4,6-trichloro- (CA INDEX NAME)



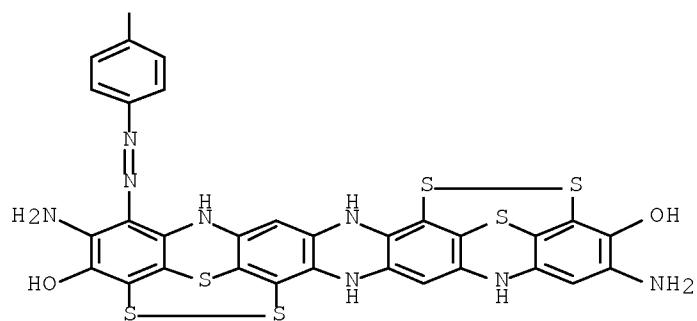
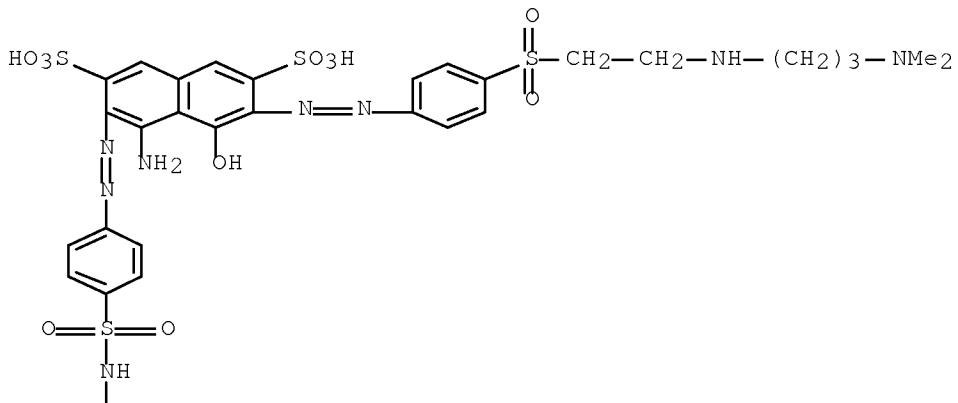
RN 109-55-7 HCAPLUS
CN 1,3-Propanediamine, N1,N1-dimethyl- (CA INDEX NAME)



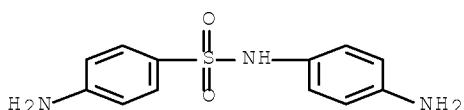
RN 124-09-4 HCAPLUS
CN 1,6-Hexanediamine (CA INDEX NAME)



IT 440103-79-7P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(sulfur dye for leather; production of anionic azo dyes with spacer arms)
RN 440103-79-7 HCAPLUS
CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[2-[4-[[4-[(2,11-diamino-7,9,16,18-tetrahydro-3,12-dihydroxy-4,6:13,15-diepidithiopyrazino[2,3-b:5,6-b']diphenothiazin-1-yl)azo]phenyl]amino]sulfonyl]phenyl]diazeny]-6-[2-[4-[[2-[[3-(dimethylamino)propyl]amino]ethyl]sulfonyl]phenyl]diazeny]-5-hydroxy- (CA INDEX NAME)



IT 16803-97-7, 4, 4'-Diaminosulfanilide
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (tetrazo component; production of anionic azo dyes with
 spacer arms)
 RN 16803-97-7 HCAPLUS
 CN Benzenesulfonamide, 4-amino-N-(4-aminophenyl)- (CA INDEX NAME)



IC ICM D06P003-32
 ICS C09B001-00; D06P001-00; C09B047-04; C09B003-00; C09B005-00;
 C09B006-00

INCL 008436000
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
 Section cross-reference(s): 28, 40, 45
 ST anionic azo dye spacer arm prodn use
 IT Azo dyes
 (acid; production of anionic azo dyes with spacer arms for leather and cotton)
 IT Textiles
 (cotton; production of anionic azo dyes with spacer arms for leather and cotton)
 IT Leather
 (production of anionic azo dyes with spacer arms for leather and cotton)
 IT 1102416-75-0 1102416-76-1 1102416-77-2
 1102416-78-3
 RL: PRPH (Prophetic)
 (Anionic azo dyes and their use on cotton and leather)
 IT 440103-78-6P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (acid dye for leather; production of anionic azo dyes with spacer arms)
 IT 90-51-7, 6-Amino-4-hydroxy-2-naphthalenesulfonic acid
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling and diazo component; production of anionic azo dyes with spacer arms)
 IT 88-63-1, m-Phenylenediamine-4-sulfonic acid 90-20-0,
 4-Amino-5-hydroxy-2,7-naphthalenedisulfonic acid 102-01-2,
 Acetoacetanilide 591-27-5, m-Aminophenol 1326-82-5, C.I.
 Sulfur Black 1 25711-72-2, 3-Ureidoaniline
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling component; production of anionic azo dyes with spacer arms)
 IT 118-03-6, 2-Aminonaphthalene-3,6,8-trisulfonic acid
 121-57-3 2494-89-5, 4-(2-Sulfatoethylsulfonyl)aniline
 78696-32-9 440103-81-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (diazo component; production of anionic azo dyes with spacer arms)
 IT 440103-80-0P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (metalized dye for leather; production of anionic azo dyes with spacer arms)
 IT 440103-77-5P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (reactive dye for cotton; production of anionic azo dyes with spacer arms)
 IT 60-32-2, ϵ -Aminocaproic acid 108-45-2,
 m-Phenylenediamine, reactions 108-77-0, Cyanuric chloride
 109-55-7, N,N-Dimethyl-1,3-propanediamine 124-09-4,
 Hexamethylenediamine, reactions 17593-70-3, Chromium acetate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (starting material; production of anionic azo dyes with spacer arms)
 IT 440103-79-7P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material

use); PREP (Preparation); USES (Uses)
 (sulfur dye for leather; production of anionic azo
 dyes with spacer arms)
 IT 16803-97-7, 4,4'-Diaminosulfanilide
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (tetrazo component; production of anionic azo dyes with
 spacer arms)

L31 ANSWER 9 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2001:265511 HCPLUS Full-text
 DOCUMENT NUMBER: 134:297164
 TITLE: Reactive dyes with high exhaustion
 and fixation values
 INVENTOR(S): Broadbent, Peter Jeffrey; Lewis, David Malcolm;
 Genain, Gilles Yves Marie Fernand; He, Wei Dong;
 Yousaf, Taher Iqbal
 PATENT ASSIGNEE(S): The Procter & Gamble Company, USA
 SOURCE: PCT Int. Appl., 43 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001025338	A1	20010412	WO 2000-US26975	20000929 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1218453	A1	20020703	EP 2000-967177	20000929 <--
EP 1218453	B1	20050511		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003511511	T	20030325	JP 2001-528497	20000929 <--
JP 3971184	B2	20070905		
CN 1195804	C	20050406	CN 2000-816561	20000929 <--
AT 295394	T	20050515	AT 2000-967177	20000929 <--
US 6790943	B1	20040914	US 2002-89340	20020327 <--
MX 2002003288	A	20021004	MX 2002-3288	20020401 <--
PRIORITY APPLN. INFO.:			GB 1999-23328	A 19991001 <--
			GB 2000-6969	A 20000322 <--
			GB 2000-9842	A 20000425 <--
			WO 2000-US26975	W 20000929 <--

OTHER SOURCE(S): MARPAT 134:297164

AB A dye comprises (a) ≥ 1 chromophore and (b) ≥ 1 fiber-reactive group $\text{SO}_2\text{C}_2\text{H}_4\text{Y}$, where Y is derived from a hydrated aldehyde (especially a hydrolyzed sugar), a hydrated ketone or orthoformic acid, and is attached via a hemiacetal linkage. The dyes have high exhaustion values, high fixation values and high efficiency values and show significant improvements in terms of reducing the amount of spent dye in effluent, increasing dye affinity to the substrate, increasing the fraction of dye-substrate covalent bonding, increasing the ability to dye substrates at room temperature, decreasing the amount of dye that is removed during the post-dyeing soaping-off process and reduction of staining of

adjacent white fabrics during laundering. In addition, the dyes of this structure provide more intense dyeings and require less salt for dyeing cotton substrates. They are conveniently prepared, e.g., by reaction of SO₂CH₂CH₂OSO₃H groups in conventional reactive dyes or intermediates with, e.g., acid-hydrolyzed glucose. A dye thus prepared from Remazol Red RB and glucose showed 97.32% exhaustion and 97.21% fixation in dyeing cotton at 50°.

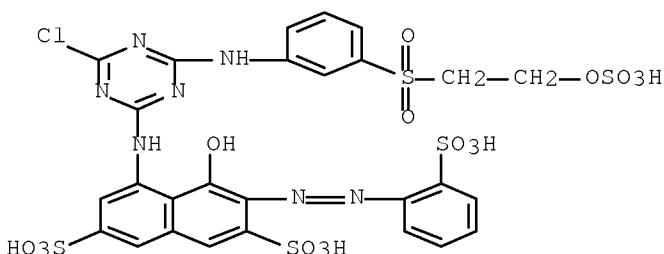
IT 23354-52-1DP, Sumifix Supra Brilliant Red 2BF, reaction products with acid-hydrolyzed glucose 145017-98-7DP, Remazol Red RB, reaction products with acid-hydrolyzed glucose or sucrose or orthoformic acid 333764-41-3P 333764-43-5P 333800-01-4P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(preparation of reactive dyes with high exhaustion and fixation values)

RN 23354-52-1 HCAPLUS

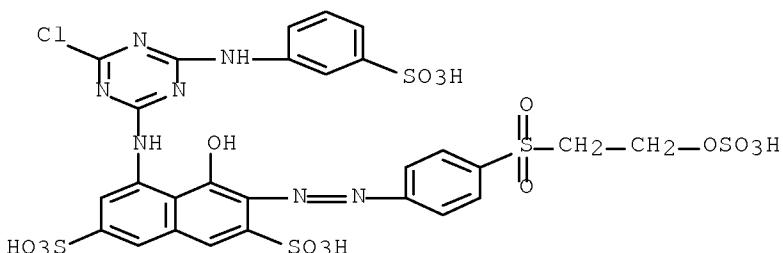
CN 2,7-Naphthalenedisulfonic acid, 5-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-4-hydroxy-3-[2-(2-sulfophenyl)diazenyl]-, sodium salt (1:4) (CA INDEX NAME)



●4 Na

RN 145017-98-7 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 5-[[4-chloro-6-[(3-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]-4-hydroxy-3-[2-[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]-, sodium salt (1:4) (CA INDEX NAME)



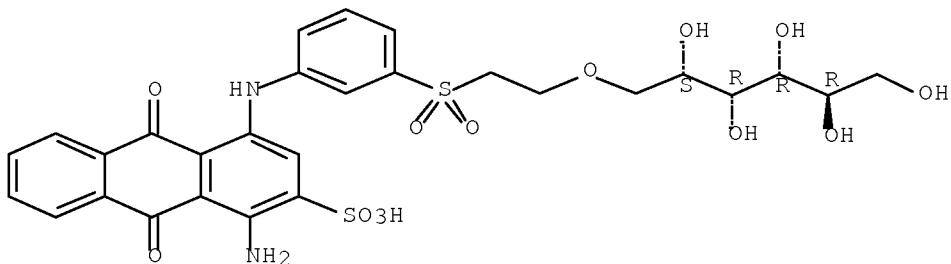
●4 Na

RN 333764-41-3 HCAPLUS

11/628659

CN D-Glucitol, 1-O-[2-[3-[(4-amino-9,10-dihydro-9,10-dioxo-3-sulfo-1-anthracenyl)amino]phenyl]sulfonyl]ethyl]-, monosodium salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.



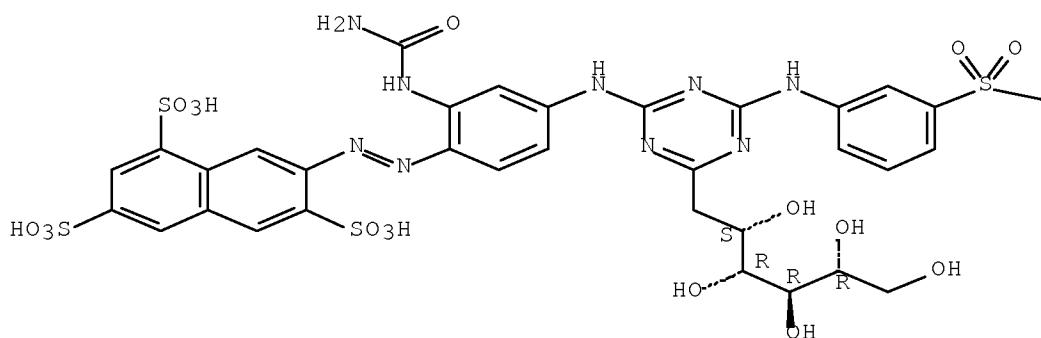
RN 333764-43-5 HCAPLUS

CN D-Glucitol, 1-O-[2-[3-[[4-[[3-[(aminocarbonyl)amino]-4-[(3,6,8-trisulfo-2-naphthalenyl)azo]phenyl]amino]-6-(1-deoxy-D-glucitol-1-yl)-1,3,5-triazin-2-yl]amino]phenyl]sulfonyl]ethyl]- (9CI) (CA INDEX NAME)

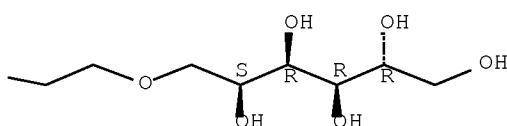
Absolute stereochemistry.

Double bond geometry unknown.

PAGE 1-A



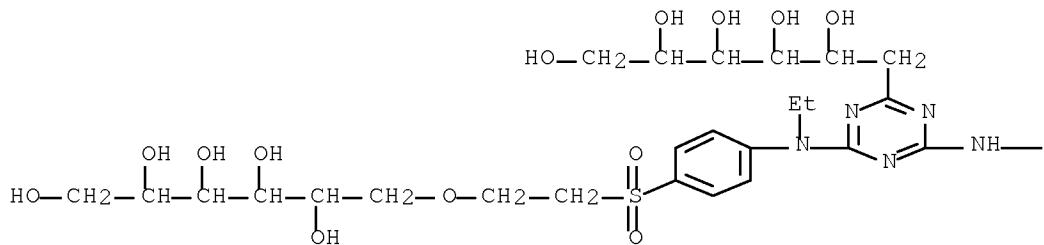
PAGE 1-B



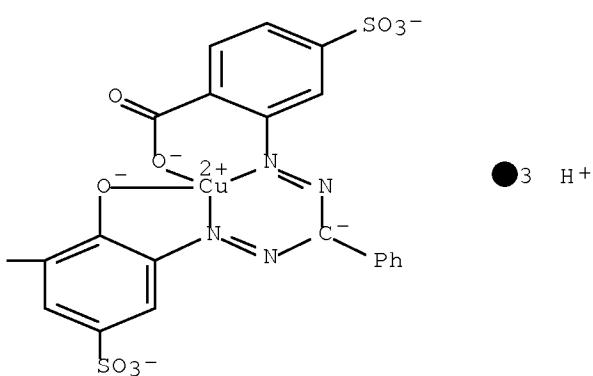
RN 333800-01-4 HCPLUS

CN Cuprate(3-), [1-O-[2-[[4-[[4-[[3-[[2-(carboxy- κ O)-5-sulfophenyl]azo- κ N2]phenylmethyl]azo- κ N1]-2-(hydroxy- κ O)-5-sulfophenyl]amino]-6-(1-deoxy-D-glucitol-1-yl)-1,3,5-triazin-2-yl]ethylamino]phenyl]sulfonyl]ethyl]-D-glucitolato(5-)]-, trihydrogen, (SP-4-3)- (9CI) (CA INDEX NAME)

PAGE 1-A



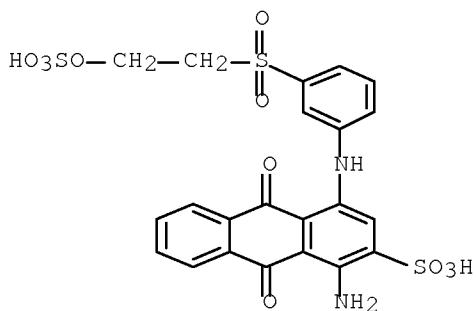
PAGE 1-B



IT 2580-78-1, Remazol Brilliant Blue R Special 86293-57-4,
 Sumifix Supra Yellow 3RF 89933-65-3, Sumifix Supra Blue BRF
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of reactive dyes with high exhaustion and
 fixation values)

RN 2580-78-1 HCPLUS

CN 2-Anthracenesulfonic acid, 1-amino-9,10-dihydro-9,10-dioxo-4-[[3-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-, sodium salt (1:2) (CA INDEX NAME)

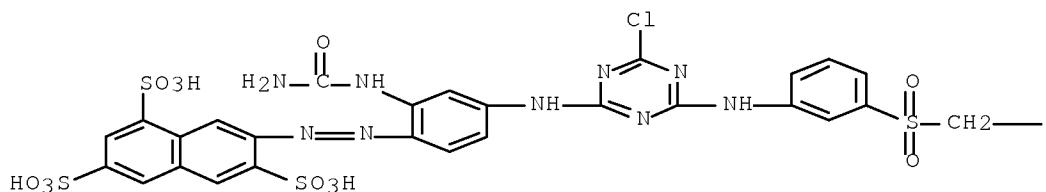


●2 Na

RN 86293-57-4 HCPLUS

CN 1,3,6-Naphthalenetrisulfonic acid,
7-[2-[2-[(aminocarbonyl)amino]-4-[[4-chloro-6-[[3-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]phenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A

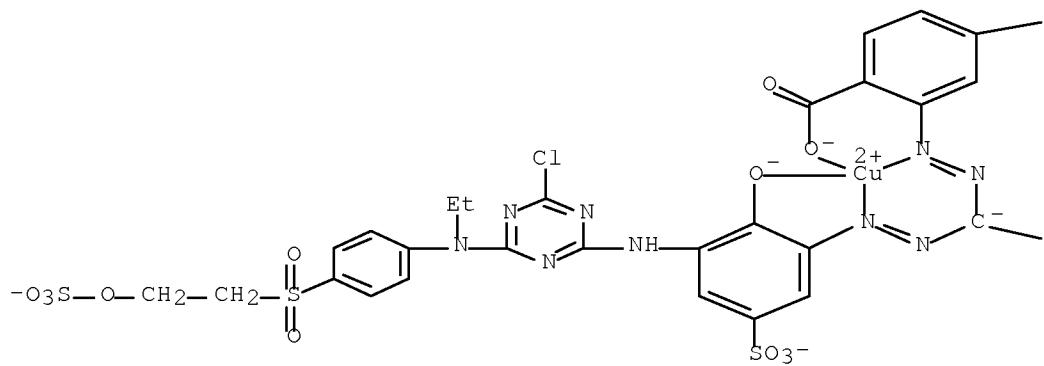


PAGE 1-B

-CH₂-OSO₃H

RN 89933-65-3 HCPLUS

CN Cuprate(4-), [2-[2-[[2-[[3-[[4-chloro-6-[[ethyl[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-(hydroxy- κ O)-5-sulfophenyl]diazenyl- κ N2]phenylmethyl]diazenyl- κ N1]-4-sulfobenzoato(6-)- κ O]-, hydrogen (1:4), (SP-4-3)- (CA INDEX NAME)



—SO₃—

●4 H⁺

—Ph

IC ICM C09B062-78
 ICS D06P003-00; D06P001-38; C09B062-503; C09B062-44
 CC 41-1 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
 Sensitizers)
 Section cross-reference(s): 40, 45, 62
 ST reactive dye vinyl sulfone precursor; acid hydrolyzed
 sugar leaving group
 IT Carbohydrates, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (aldoses, hydrated; preparation of reactive dyes with
 high exhaustion and fixation values)
 IT Textiles
 (cotton; reactive dyes having high exhaustion and
 fixation values for)
 IT Hair preparations
 (dyes; reactive dyes having high
 exhaustion and fixation values)
 IT Carbohydrates, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (ketoses, hydrated; preparation of reactive dyes with
 high exhaustion and fixation values)
 IT Dyeing
 (of hair or leather or textile fibers with reactive
 dyes having high exhaustion and fixation values)

IT **Reactive dyes**
 (preparation of reactive dyes with high exhaustion and fixation values)

IT **Leather**
 Silk
 Wool
 (reactive dyes having high exhaustion and fixation values for)

IT **Polyamide fibers, miscellaneous**
 RL: MSC (Miscellaneous)
 (reactive dyes having high exhaustion and fixation values for)

IT 12236-86-1DP, Remazol Turquoise Blue G, reaction products with acid-hydrolyzed glucose or sucrose 23354-52-1DP, Sumifix Supra Brilliant Red 2BF, reaction products with acid-hydrolyzed glucose 115682-09-2DP, Sumifix Supra Turquoise BlueBGF, reaction products with acid-hydrolyzed glucose 140876-11-5DP, Cibacron Red C2G, reaction products with acid-hydrolyzed glucose 140876-15-9DP, Remazol Yellow 3RS, reaction products with acid-hydrolyzed glucose or sucrose 145017-98-7DP, Remazol Red RB, reaction products with acid-hydrolyzed glucose or sucrose or orthoformic acid 149315-82-2DP, Cibacron Blue CR, reaction products with acid-hydrolyzed glucose 195739-93-6DP, Cibacron Yellow C2R, reaction products with acid-hydrolyzed glucose 333764-41-3P 333764-43-5P 333800-01-4P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of reactive dyes with high exhaustion and fixation values)

IT 50-69-1, Ribose 50-99-7, Glucose, reactions 57-48-7, Fructose, reactions 57-50-1, Sucrose, reactions 58-86-6, Xylose, reactions 59-23-4, Galactose, reactions 147-81-9, Arabinose 463-78-5, Orthoformic acid 533-67-5, Deoxyribose 2580-78-1, Remazol Brilliant Blue R Special 3458-28-4, Mannose 3615-41-6, Rhamnose 5987-68-8, Altrose 6038-51-3, Allose 30077-17-9, Talose 86293-57-4, Sumifix Supra Yellow 3RF 89933-65-3, Sumifix Supra Blue BRF
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of reactive dyes with high exhaustion and fixation values)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 10 OF 24 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 2001:265509 HCAPLUS Full-text
 DOCUMENT NUMBER: 134:282130
 TITLE: Reactive dye compounds and their use
 INVENTOR(S): Lewis, David Malcolm; He, Dong Wei; Yousaf, Taher Iqbal; Genain, Gilles Yves Marie Fernand
 PATENT ASSIGNEE(S): The Procter & Gamble Company, USA
 SOURCE: PCT Int. Appl., 22 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
WO 2001025336	A1	20010412	WO 2000-US26911	20000929 <--

11/628659

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1218451 A1 20020703 EP 2000-965537 20000929 <--

EP 1218451 B1 20031210

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

JP 2003511509 T 20030325 JP 2001-528495 20000929 <--

AT 256167 T 20031215 AT 2000-965537 20000929 <--

CN 1182201 C 20041229 CN 2000-816522 20000929 <--

US 6736864 B1 20040518 US 2002-89334 20020327 <--

PRIORITY APPLN. INFO.: GB 1999-23332 A 19991001 <--
WO 2000-US26911 W 20000929 <--

OTHER SOURCE(S): MARPAT 134:282130

AB A reactive dye compound comprises: (a) at least one chromophore moiety; (b) at least one SO₂C₂H₄ group which is attached to the chromophore moiety either directly via the sulfur atom of the SO₂C₂H₄ group or via a linking group; characterized in that at least one SO₂C₂H₄ group is substituted on its terminal carbon atom with at least one Y group wherein Y is a phosphonate or borate derivative. The compds. herein have high exhaustion, fixation, and efficiency values and show significant improvements in terms of reducing spent dyes in the effluent, increasing dye affinity to the substrate, increasing the dye-substrate covalent bonding, increasing the ability to dye substrates at room temperature, decreasing the amount of dye removed during the post dyeing soaping off process, and reducing the staining of adjacent white fabrics. In addition, the dye compds. provide more intense dyeings and require lower levels of salt for dyeing cotton substrates. An example was given in which the reaction product of Remazol Brilliant Blue R Special and acetodiphosphonic acid was prepared and used to dye cotton deep blue.

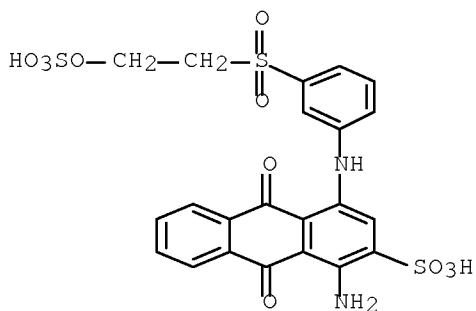
IT 2580-78-1DP, Remazol Brilliant Blue R Special, reaction products with acetodiphosphonic acid

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(blue dye; production of reactive dyes with improved application and use properties)

RN 2580-78-1 HCAPLUS

CN 2-Anthracenesulfonic acid, 1-amino-9,10-dihydro-9,10-dioxo-4-[[3-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

IC ICM C09B062-022
 ICS D06P003-00; D06P001-38; C09B062-503; C09B062-443
 CC 41-4 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
 Sensitzers)
 Section cross-reference(s): 40, 45, 62
 ST acetodiphosphonic acid treated reactive dye prodn
 IT Buffers
 (in reactive dyeing with acetodiphosphonic
 acid-treated dyes)
 IT Textiles
 (polyamide-wool; reactive dyeing with
 acetodiphosphonic acid-treated dyes)
 IT Cotton fibers
 Hair
 Leather
 Silk
 Wool
 (reactive dyeing with acetodiphosphonic
 acid-treated dyes)
 IT Polyamide fibers, processes
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (reactive dyeing with acetodiphosphonic
 acid-treated dyes)
 IT Reactive dyes
 (vinyl sulfone; production of reactive dyes with
 improved application and use properties)
 IT Reactive dyeing
 (with prepared acetodiphosphonic acid-treated vinyl sulfone dyes)
 IT 2580-78-1DP, Remazol Brilliant Blue R Special, reaction products
 with acetodiphosphonic acid 2809-21-4DP, 1-Hydroxyethylidenediphosphonic
 acid, reaction products with Remazol Brilliant Blue R Special
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (blue dye; production of reactive dyes with
 improved application and use properties)
 IT 77-92-9, Citric acid, uses 110-16-7, Maleic acid, uses 110-17-8,
 Fumaric acid, uses 6915-15-7, Malic acid
 RL: NUU (Other use, unclassified); USES (Uses)
 (buffer in reactive dyeing with acetodiphosphonic
 acid-treated dyes)

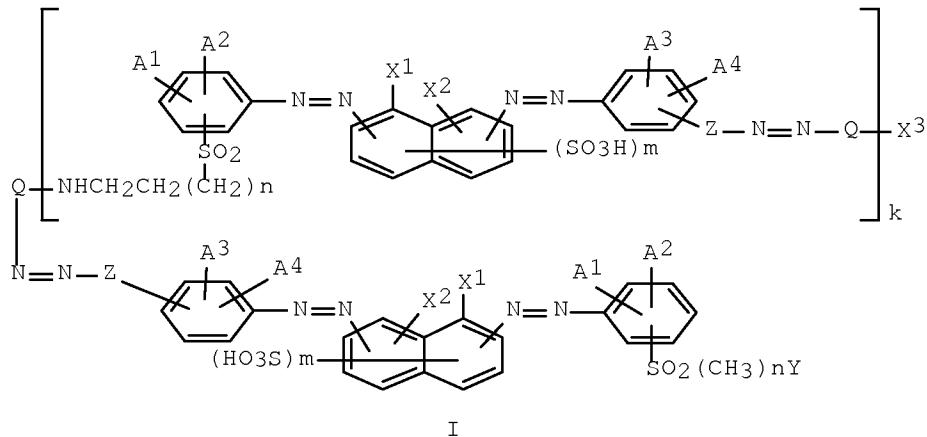
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 11 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1999:791820 HCPLUS Full-text
 DOCUMENT NUMBER: 132:23858
 TITLE: **Tris- and polyazo reactive dyes, their mixtures, their production and uses**
 INVENTOR(S): Patsch, Manfred; Scholz, Gerhard
 PATENT ASSIGNEE(S): BASF A.-G., Germany
 SOURCE: Ger. Offen., 18 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19825202	A1	19991209	DE 1998-19825202	19980605 <--
WO 9964520	A1	19991216	WO 1999-EP3535	19990522 <--
W: BR, IN, KR, MX, TR, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1086180	A1	20010328	EP 1999-955488	19990522 <--
R: DE, ES, GB, IT				
PRIORITY APPLN. INFO.:			DE 1998-19825202	A 19980605 <--
			WO 1999-EP3535	W 19990522 <--

OTHER SOURCE(S): MARPAT 132:23858

GI



AB **Vinyl sulfone reactive azo dyes** [I; A1, A2, A3, A4 = H, sulfo; Q = aromatic or heterocyclic connecting group; X1, X2 = 1 each of hydroxy or amino/substituted amino; X3 = H, amino; Y = vinyl or group convertible thereto; Z = direct bond or organic connecting group; k = 0 or (when X3 = amino) 1-4; m = 1, 2; n = 0, 1] are obtained which have good substantivity, especially on leather. In an example, p-(2-hydroxyethylsulfonyl)aniline \rightarrow 1-hydroxy-8-amino-3,6-naphthalenedisulfonic acid was prepared and coupled with tetrazotized 4,4'-diaminodiphenylsulfamide; coupling of the product with m-phenylenediamine gave a black dye (λ_{max} 399, 472, 608 nm).

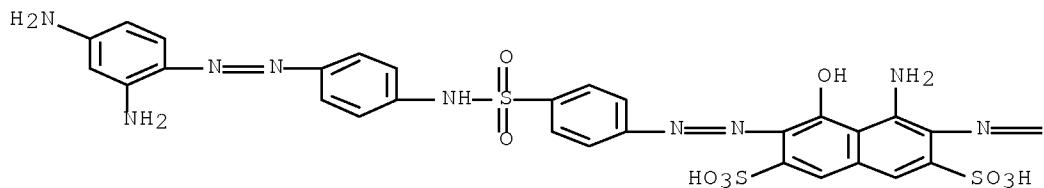
IT 252011-02-2P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (black dye; production of polyazo reactive dyes)

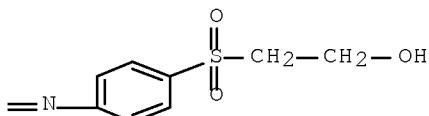
RN 252011-02-2 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[2-[4-[[4-[2-(2,4-diaminophenyl)diazaryl]phenyl]amino]sulfonyl]phenyl]diazaryl]-5-hydroxy-3-[2-[4-[(2-hydroxyethyl)sulfonyl]phenyl]diazaryl]- (CA INDEX NAME)

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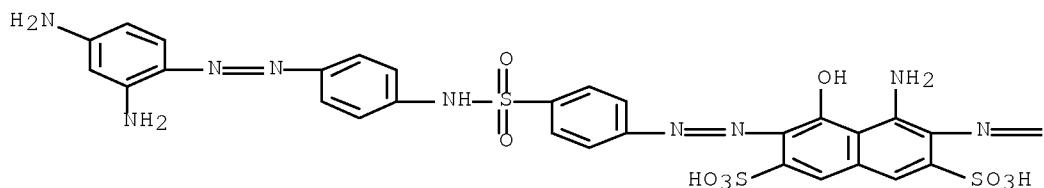
IT 252011-06-6P 252011-07-7P 252011-08-8P

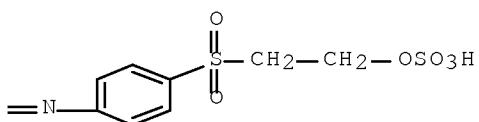
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (black dye; production of polyazo reactive dyes for leather)

RN 252011-06-6 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[2-[4-[[4-[2-(2,4-diaminophenyl)diazaryl]phenyl]amino]sulfonyl]phenyl]diazaryl]-5-hydroxy-3-[2-[4-[(2-sulfoxyethyl)sulfonyl]phenyl]diazaryl]- (CA INDEX NAME)

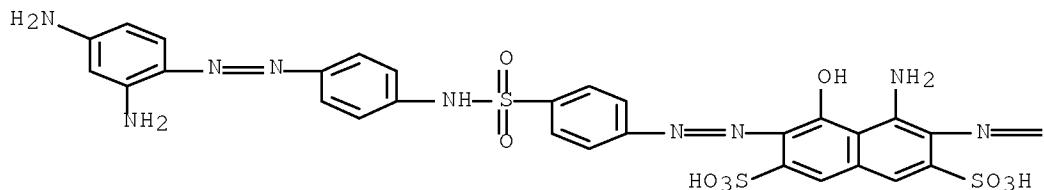
PAGE 1-A



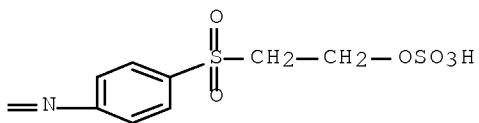


RN 252011-07-7 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[2-[4-[4-[2-(2,4-diaminophenyl)diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-5-hydroxy-3-[2-[4-[2-(sulfoxyethyl)sulfonyl]phenyl]diazenyl]-, sodium salt (1:3) (CA INDEX NAME)

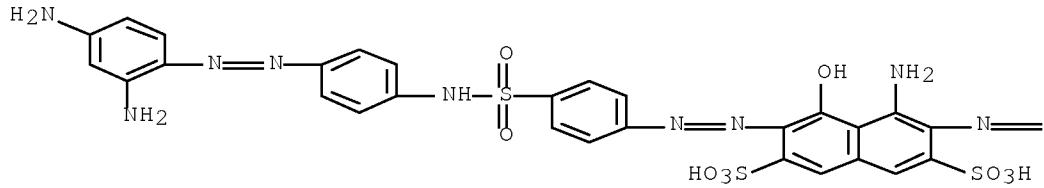


●3 Na

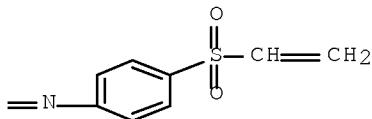


RN 252011-08-8 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[2-[4-[4-[2-(2,4-diaminophenyl)diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-3-[2-[4-(ethenylsulfonyl)phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)



PAGE 1-B



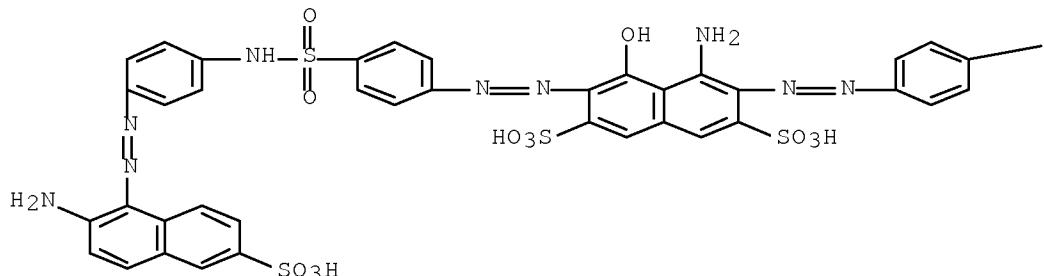
IT 252011-13-5P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (blue dye; production of polyazo reactive dyes for leather)

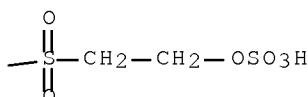
RN 252011-13-5 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[2-[4-[4-[2-(2-amino-6-sulfo-1-naphthalenyl)diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-5-hydroxy-3-[2-[4-[2-(sulfoxyethyl)sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



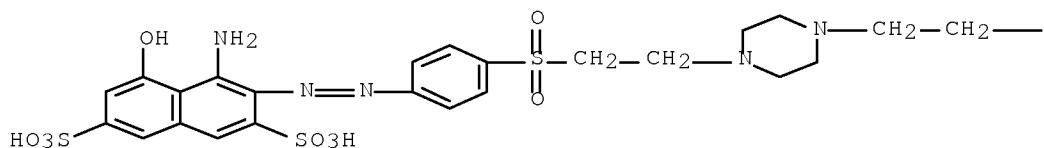
IT 252011-15-7P 252011-16-8P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (coupling component; production of polyazo reactive dyes)

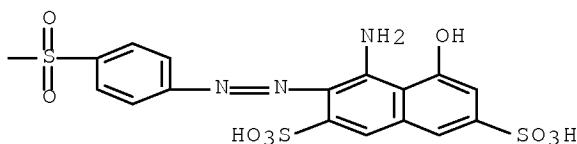
RN 252011-15-7 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 3,3'-[1,4-piperazinediylbis(2,1-ethanediylsulfonyl)-4,1-phenyleneazo]bis[4-amino-5-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A

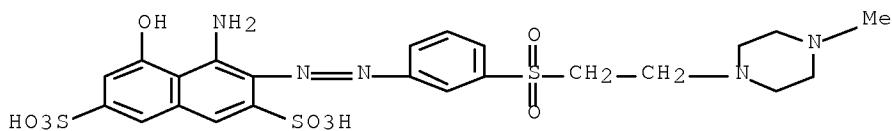


PAGE 1-B



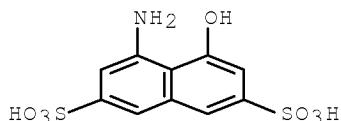
RN 252011-16-8 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[2-[3-[2-(4-methyl-1-piperazinyl)ethyl]sulfonyl]phenyl]diazenyl- (CA INDEX NAME)

IT 90-20-0 108-45-2, 1,3-Benzenediamine, reactions
119-18-6 2243-67-6, 2,6-Diaminonaphthalene
13269-73-3RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling component; production of polyazo reactive
dyes)

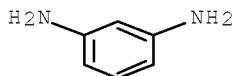
RN 90-20-0 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy- (CA INDEX NAME)

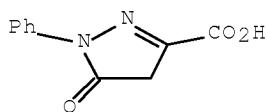


RN 108-45-2 HCAPLUS

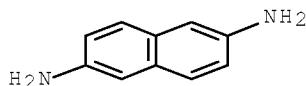
CN 1,3-Benzenediamine (CA INDEX NAME)



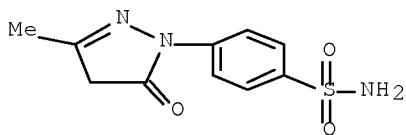
RN 119-18-6 HCAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4,5-dihydro-5-oxo-1-phenyl- (CA INDEX NAME)



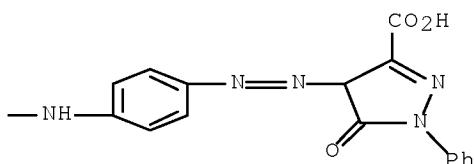
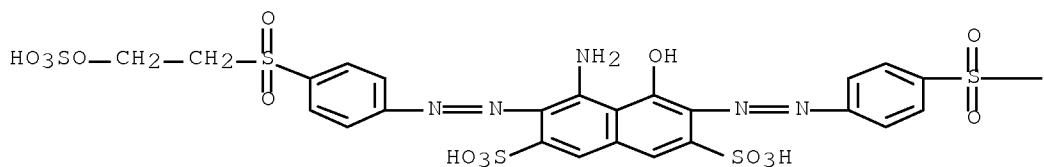
RN 2243-67-6 HCAPLUS
 CN 2,6-Naphthalenediamine (CA INDEX NAME)



RN 13269-73-3 HCAPLUS
 CN Benzenesulfonamide, 4-(4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-1-yl)- (CA INDEX NAME)



IT 252011-09-9P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (dark green dye; production of polyazo reactive dyes for leather)
 RN 252011-09-9 HCAPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[4-[[4-[2-[8-amino-1-hydroxy-3,6-disulfo-7-[2-[4-[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]-2-naphthalenyl]diazenyl]phenyl]sulfonyl]amino]phenyl]diazenyl]-4,5-dihydro-5-oxo-1-phenyl- (CA INDEX NAME)



IT 2494-88-4, 3-(2-Sulfatoethylsulfonyl)aniline 2494-89-5,

p-(2-Sulfatoethylsulfonyl)aniline 5246-58-2,

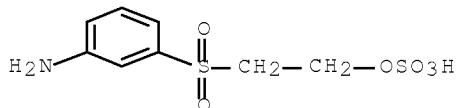
p-(2-Hydroxyethylsulfonyl)aniline

RL: RCT (Reactant); RACT (Reactant or reagent)

(diazo component; production of polyazo reactive dyes)

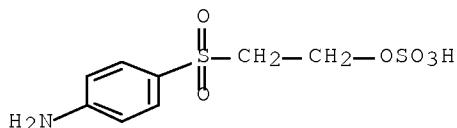
RN 2494-88-4 HCPLUS

CN Ethanol, 2-[(3-aminophenyl)sulfonyl]-, 1-(hydrogen sulfate) (CA INDEX NAME)



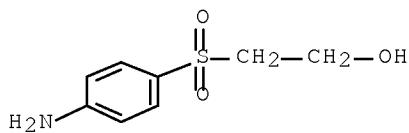
RN 2494-89-5 HCPLUS

CN Ethanol, 2-[(4-aminophenyl)sulfonyl]-, 1-(hydrogen sulfate) (CA INDEX NAME)



RN 5246-58-2 HCPLUS

CN Ethanol, 2-[(4-aminophenyl)sulfonyl]- (CA INDEX NAME)



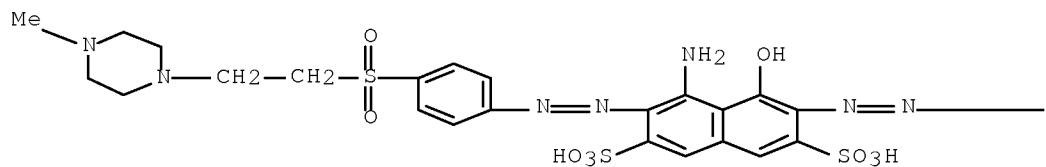
IT 252011-03-3P 252011-04-4P 252011-05-5P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (dye; production of polyazo reactive dyes)

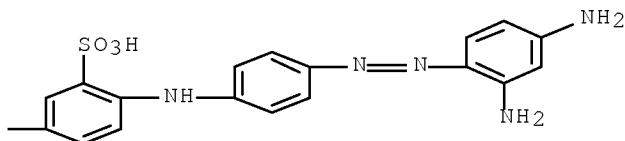
RN 252011-03-3 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[2-[4-[4-[2-(2,4-diaminophenyl)diazenyl]phenyl]amino]-3-sulfophenyl]diazenyl]-5-hydroxy-3-[2-[4-[2-(4-methyl-1-piperazinyl)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

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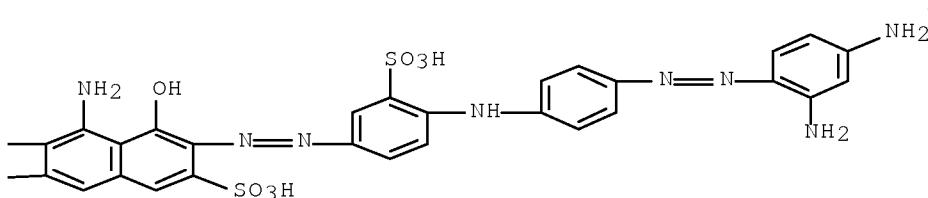
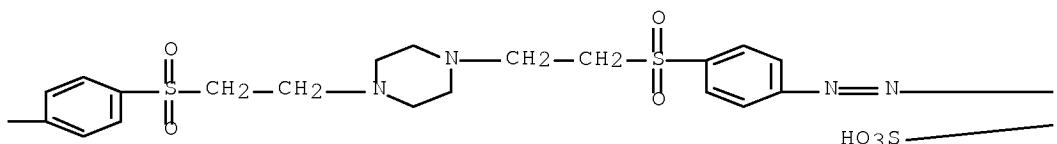
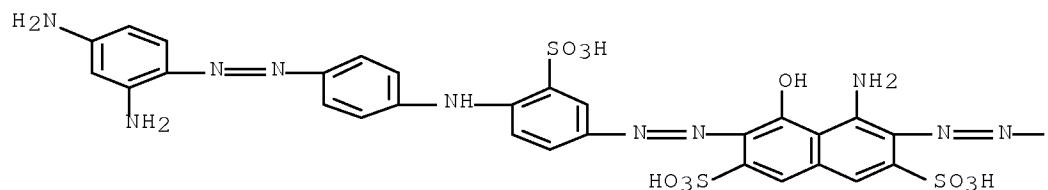


PAGE 1-B



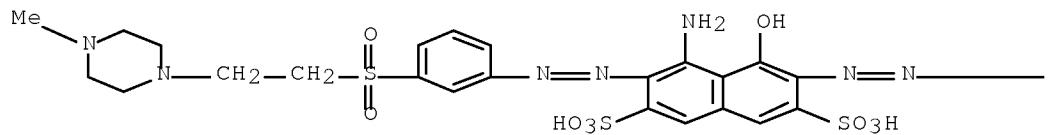
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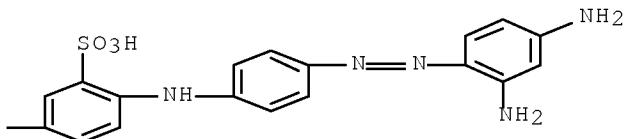
CN 2,7-Naphthalenedisulfonic acid, 3,3'-[1,4-piperazinediylbis(2,1-ethanediylsulfonyl-4,1-phenyleneazo)]bis[4-amino-6-[4-[4-[2,4-diaminophenyl]azo]phenyl]amino]-3-sulfophenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)



RN 252011-05-5 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[2-[4-[2-(2,4-diaminophenyl)diazenyl]phenyl]amino]-3-sulfophenyl]diazenyl]-5-hydroxy-3-[2-[3-[2-(4-methyl-1-piperazinyl)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)



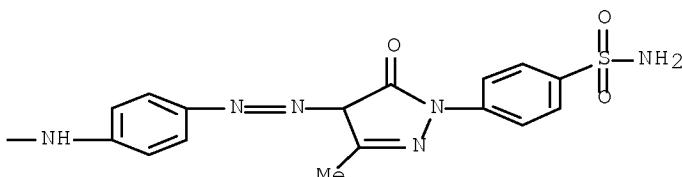
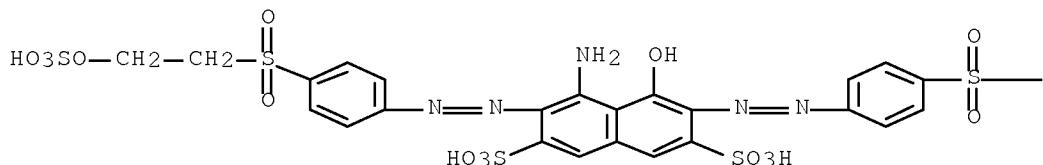


IT 252011-10-2P 252011-11-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (green dye; production of polyazo reactive dyes for leather)

RN 252011-10-2 HCPLUS

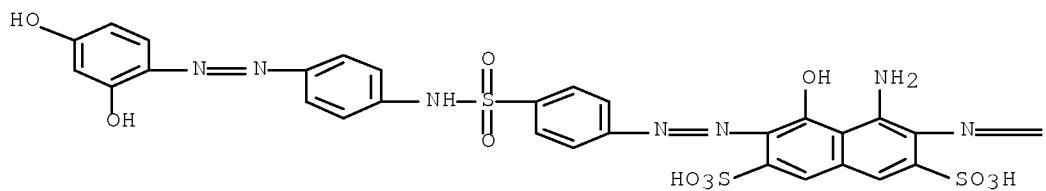
CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[2-[4-[[2-[1-[4-(aminosulfonyl)phenyl]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl]diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-5-hydroxy-3-[2-[4-[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)



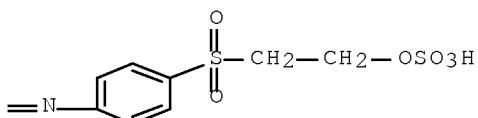
RN 252011-11-3 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[2-[4-[[2-(2,4-dihydroxyphenyl)diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-5-hydroxy-3-[2-[4-[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

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PAGE 1-B



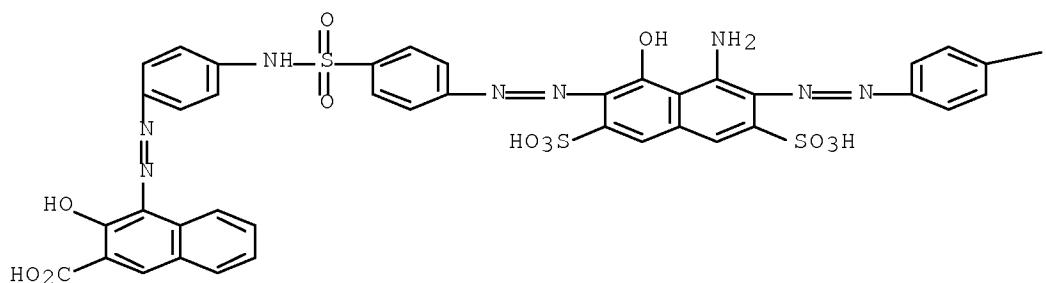
IT 252011-12-4P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (navy blue dye; production of polyazo reactive dyes for leather)

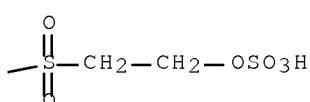
RN 252011-12-4 HCPLUS

CN 2-Naphthalenecarboxylic acid, 4-[2-[4-[[4-[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]-2-naphthalenyl]diazenylphenylsulfonylaminophenyl]diazenyl]-3-hydroxy- (CA INDEX NAME)

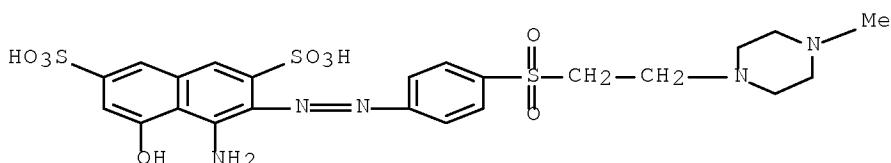
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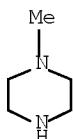
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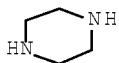
IT 252011-14-6P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (red coupling component; production of polyazo reactive dyes)
 RN 252011-14-6 HCPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[2-[4-[2-(4-methyl-1-piperazinyl)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)



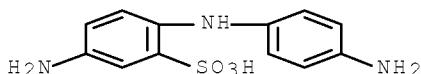
IT 109-01-3, N-Methylpiperazine 110-85-0, Piperazine, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (starting material; production of polyazo reactive dyes)
 RN 109-01-3 HCPLUS
 CN Piperazine, 1-methyl- (CA INDEX NAME)



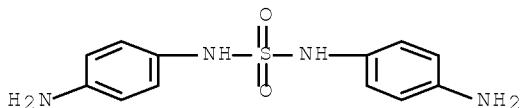
RN 110-85-0 HCPLUS
 CN Piperazine (CA INDEX NAME)



IT 119-70-0 106003-92-3, 4,4'-Diaminodiphenylsulfamide
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (tetrazo component; production of polyazo reactive dyes)
 RN 119-70-0 HCPLUS
 CN Benzenesulfonic acid, 5-amino-2-[(4-aminophenyl)amino]- (CA INDEX NAME)



RN 106003-92-3 HCAPLUS
 CN Sulfamide, N,N'-bis(4-aminophenyl)- (CA INDEX NAME)



IC ICM C09B062-513
 ICS C09B035-38; C09B043-32; C09B067-22; D06P003-32; D06P001-384;
 C07C309-50
 ICA D06P003-10; D06P003-66; C07C317-32
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
 Sensitizers)
 Section cross-reference(s): 45
 ST polyazo reactive dye prodn leather
 IT Reactive dyeing
 (of leather and other substrates with prepared polyazo
 dyes)
 IT Leather
 (production of polyazo reactive dyes for)
 IT Reactive azo dyes
 (vinyl sulfone; production of polyazo reactive
 dyes for leather)
 IT 252011-02-2P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (black dye; production of polyazo reactive
 dyes)
 IT 252011-06-6P 252011-07-7P 252011-08-8P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (black dye; production of polyazo reactive
 dyes for leather)
 IT 252011-13-5P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (blue dye; production of polyazo reactive
 dyes for leather)
 IT 252011-15-7P 252011-16-8P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (coupling component; production of polyazo reactive
 dyes)
 IT 90-20-0 92-70-6, 3-Hydroxy-2-naphthalenecarboxylic acid
 108-45-2, 1,3-Benzenediamine, reactions 108-46-3,
 1,3-Benzenediol, reactions 119-18-6 2243-67-6,
 2,6-Diaminonaphthalene 13269-73-3

11/628659

RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling component; production of polyazo reactive dyes)

IT 252011-09-9P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dark green dye; production of polyazo reactive dyes for leather)

IT 2494-88-4, 3-(2-Sulfatoethylsulfonyl)aniline 2494-89-5,
p-(2-Sulfatoethylsulfonyl)aniline 5246-58-2,
p-(2-Hydroxyethylsulfonyl)aniline
RL: RCT (Reactant); RACT (Reactant or reagent)
(diazo component; production of polyazo reactive dyes)

IT 252011-03-3P 252011-04-4P 252011-05-5P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye; production of polyazo reactive dyes)

IT 252011-10-2P 252011-11-3P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(green dye; production of polyazo reactive dyes for leather)

IT 252011-12-4P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(navy blue dye; production of polyazo reactive dyes for leather)

IT 252011-14-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(red coupling component; production of polyazo reactive dyes)

IT 109-01-3, N-Methylpiperazine 110-85-0, Piperazine, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; production of polyazo reactive dyes)

IT 119-70-0 106003-92-3, 4,4'-Diaminodiphenylsulfamide
RL: RCT (Reactant); RACT (Reactant or reagent)
(tetrazo component; production of polyazo reactive dyes)

L31 ANSWER 12 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:659462 HCPLUS Full-text
DOCUMENT NUMBER: 131:287742
TITLE: Reactive dyes and their use
INVENTOR(S): Brock, Earl David; Lewis, David Malcolm; Yousaf, Taher Iqbal
PATENT ASSIGNEE(S): The Procter & Gamble Company, USA
SOURCE: PCT Int. Appl., 82 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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OTHER SOURCE(S):

MARPAT 131:287742

AB **Reactive dyes** are disclosed comprising: (a) at least one chromophore moiety, (b) at least one nitrogen-containing heterocycle, (c) a linking group to link each chromophore moiety to each nitrogen-containing heterocycle; characterized in that at least one nitrogen-containing heterocycle is substituted with at least one thio derivative and at least one quaternized nitrogen derivative. The **reactive dyes** have high exhaustion and fixation Values, particularly on cellulosic substrates such as cotton, and show significant improvements in terms of reducing spent dyes in effluent, increasing dye affinity to the substrate, increasing the dye-substrate covalent bonding, increasing the ability to dye substrates at room temperature, decreasing the amount of dye that is removed during the post dyeing "soaping off process" and therefore simplifying the post dyeing "soaping off process" traditionally associated with dyeing cotton with fiber **reactive dyes**, and reduction of staining of adjacent white fabrics. In addition, the prepared dyes provide more intense dyeing and require less levels of salt for dyeing cotton substrates. In an example, Procion Red MX-8B is treated with mercaptoacetic acid and then isonicotinic acid to give a dye.

IT 55-22-1DP, Isonicotinic acid, reaction products with halogen-containing dyes and thiols 59-67-6DP, Nicotinic acid, reaction products with halogen-containing dyes and thiols 108-77-0DP, Cyanuric chloride, reaction products with sulfatoethylsulfonylaniline, halogen-containing dyes, thiols and amines 280-57-9DP, DABCO, reaction products with halogen-containing dyes and thiols 1118-68-9DP

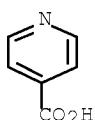
11/628659

, Dimethylaminoacetic acid, reaction products with halogen-containing dyes and thiols 2494-89-5DP, 4-(2-Sulfatoethylsulfonyl)aniline, reaction products with cyanuric chloride, halogen-containing dyes, thiols and amines 57583-69-4DP, Procion Red MX 8B, reaction products with thiols and amines 246255-73-2P 246255-74-3P 246255-76-5P 246255-78-7DP, reaction products with halogen-containing dyes and amines

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye; production of nitrogen heterocycle reactive dyes containing thio and quaternary ammonium groups)

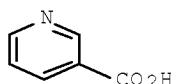
RN 55-22-1 HCAPLUS

CN 4-Pyridinecarboxylic acid (CA INDEX NAME)



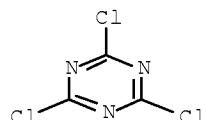
RN 59-67-6 HCAPLUS

CN 3-Pyridinecarboxylic acid (CA INDEX NAME)



RN 108-77-0 HCAPLUS

CN 1,3,5-Triazine, 2,4,6-trichloro- (CA INDEX NAME)



RN 280-57-9 HCAPLUS

CN 1,4-Diazabicyclo[2.2.2]octane (CA INDEX NAME)

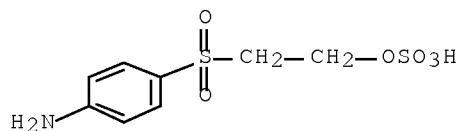


RN 1118-68-9 HCAPLUS

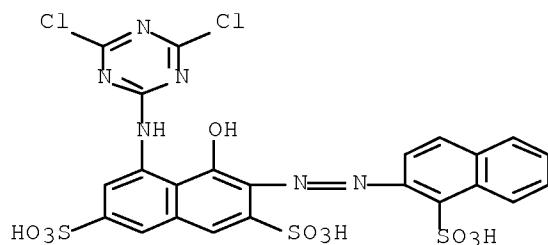
CN Glycine, N,N-dimethyl- (CA INDEX NAME)



RN 2494-89-5 HCAPLUS
 CN Ethanol, 2-[(4-aminophenyl)sulfonyl]-, 1-(hydrogen sulfate) (CA INDEX NAME)



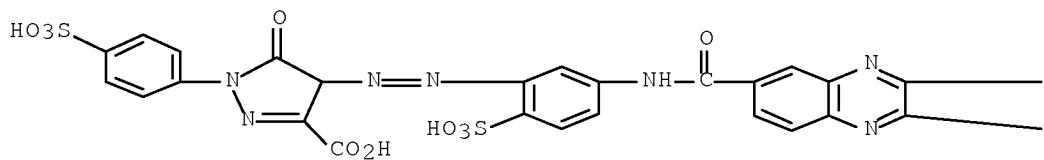
RN 57583-69-4 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 5-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]-4-hydroxy-3-[2-(1-sulfo-2-naphthalenyl)diazenyl]-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

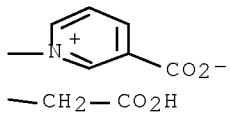
RN 246255-73-2 HCAPLUS
 CN Pyridinium, 3-carboxy-1-[7-[[3-[2-[3-carboxy-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-1H-pyrazol-4-yl]diazenyl]-4-sulfophenyl]amino]carbonyl]-3-(carboxymethyl)-2-quinoxalinyl-, inner salt, sodium salt (1:3) (CA INDEX NAME)

PAGE 1-A



●3 Na

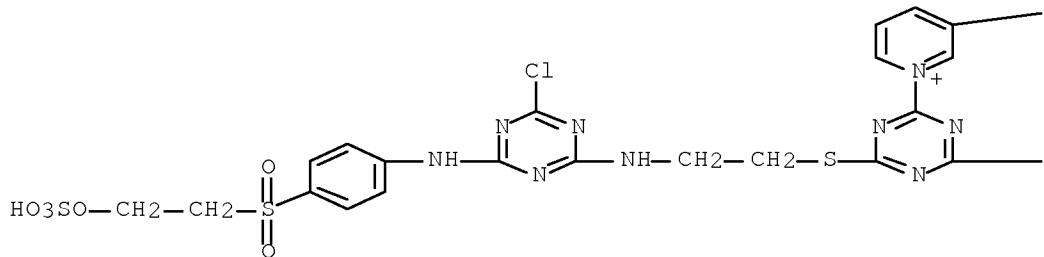
PAGE 1-B



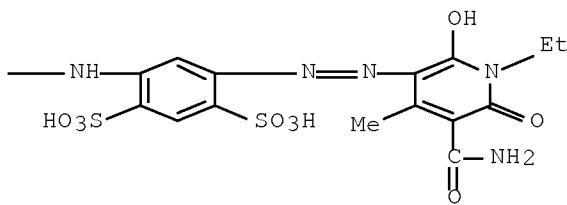
RN 246255-74-3 HCPLUS

CN Pyridinium, 1-[4-[(5-[(2-sulfoethyl)thio]phenyl)amino]-1,3,5-triazin-2-yl]amino]-2-[(4-chlorophenoxy)ethyl]sulfonyl]phenyl]amino]-6-[(2-[(4-chlorophenoxy)ethyl]sulfonyl)phenyl]amino]-1,3,5-triazin-2-yl]amino]ethyl]thio]-1,3,5-triazin-2-yl]-3-carboxy-, inner salt, sodium salt (1:2) (CA INDEX NAME)

PAGE 1-A

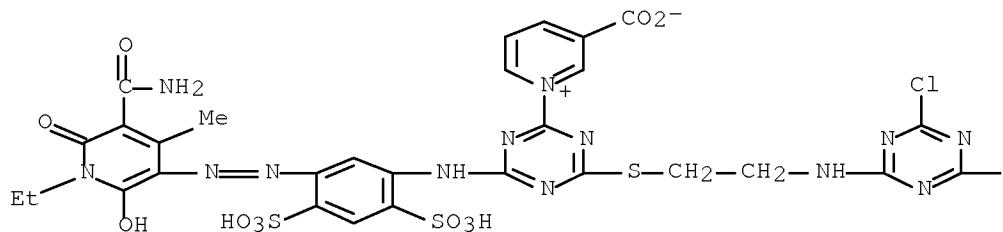


●2 Na

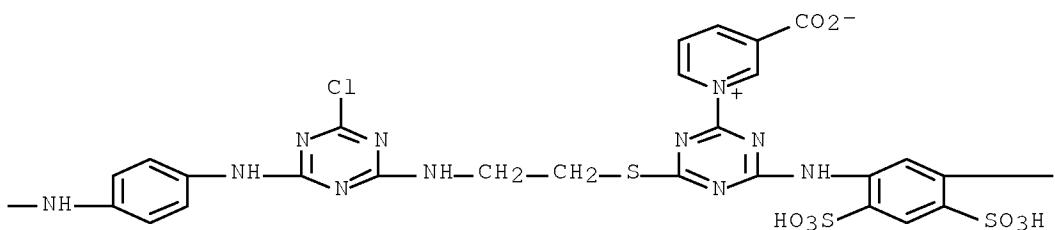
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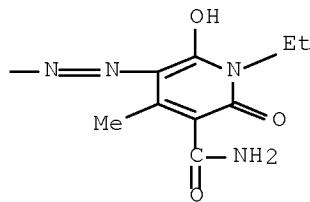
RN 246255-76-5 HCPLUS

CN Pyridinium, 1,1'-(1,4-phenylenebis[imino(6-chloro-1,3,5-triazine-4,2-diyl) imino-2,1-ethanediylthio[6-[5-[5-(aminocarbonyl)-1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl]azo]-2,4-disulfophenyl]amino)-1,3,5-triazine-4,2-diyl] bis[3-carboxy-, bis(inner salt), tetrasodium salt (9CI) (CA INDEX NAME)



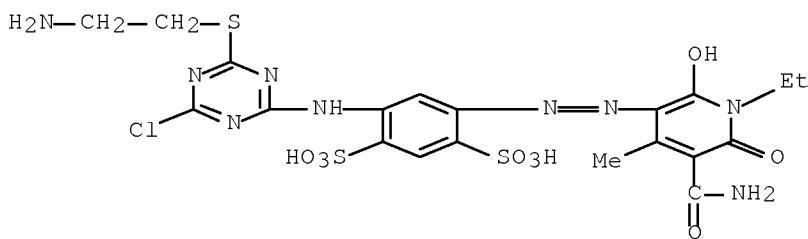
●4 Na





RN 246255-78-7 HCAPLUS

CN 1,3-Benzenedisulfonic acid, 4-[2-[5-(aminocarbonyl)-1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-3-pyridinyl]diazenyl]-6-[[4-[(2-aminoethyl)thio]-6-chloro-1,3,5-triazin-2-yl]amino]-, sodium salt (1:2) (CA INDEX NAME)



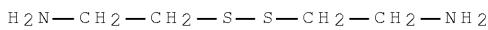
●2 Na

IT 51-85-4, Cystamine 59-67-6, Nicotinic acid, reactions 106-50-3, 1,4-Benzenediamine, reactions 108-77-0, Cyanuric chloride 2494-09-5, 4-(2-Sulfatoethylsulfonyl)aniline 70865-29-1, Procion Yellow MX 8G 204995-91-5, Levafix Golden Yellow E-G

RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; production of nitrogen heterocycle reactive dyes containing thio and quaternary ammonium groups)

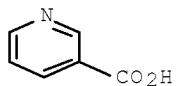
RN 51-85-4 HCAPLUS

CN Ethanamine, 2,2'-dithiobis- (CA INDEX NAME)

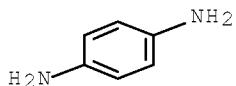


RN 59-67-6 HCAPLUS

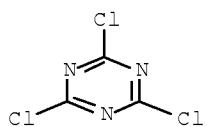
CN 3-Pyridinecarboxylic acid (CA INDEX NAME)



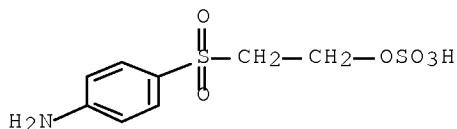
RN 106-50-3 HCAPLUS
 CN 1,4-Benzenediamine (CA INDEX NAME)



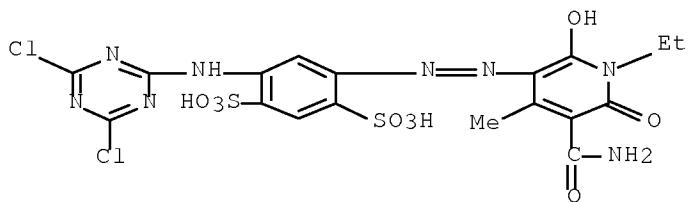
RN 108-77-0 HCAPLUS
 CN 1,3,5-Triazine, 2,4,6-trichloro- (CA INDEX NAME)



RN 2494-89-5 HCAPLUS
 CN Ethanol, 2-[(4-aminophenyl)sulfonyl]-, 1-(hydrogen sulfate) (CA INDEX NAME)



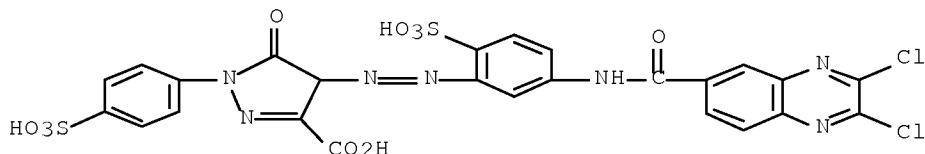
RN 70865-29-1 HCAPLUS
 CN 1,3-Benzenedisulfonic acid, 4-[2-[5-(aminocarbonyl)-1-ethyl-1,6-dihydro-2-hydroxy-4-methyl-6-oxo-3-pyridinyl]diazenyl]-6-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 204995-91-5 HCAPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[5-[(2,3-dichloro-6-quinoxaliny)carbonyl]amino]-2-sulfophenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)-, sodium salt (1:3) (CA INDEX NAME)



●3 Na

IC ICM C09B062-02

ICS C09B062-503

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 40, 45, 62

ST reactive dye nitrogen heterocycle deriv prodn; quaternary ammonium reactive dye deriv prodn; thio deriv reactive dye prodn; cotton dye nitrogen heterocyclic compd

IT Textiles
(cotton; reactive dyeing with prepared nitrogen heterocycle reactive dyes containing thio and quaternary ammonium groups)IT Reactive azo dyes
Reactive dyes
(production of nitrogen heterocycle reactive dyes containing thio and quaternary ammonium groups)IT Leather
(reactive dyeing with prepared nitrogen heterocycle reactive dyes containing thio and quaternary ammonium groups)IT Keratins
Polyamide fibers, processes
RL: PEP (Physical, engineering or chemical process); PROC (Process)
(reactive dyeing with prepared nitrogen heterocycle reactive dyes containing thio and quaternary ammonium groups)

IT Textiles
(silk; reactive dyeing with prepared nitrogen heterocycle reactive dyes containing thio and quaternary ammonium groups)

IT Reactive dyeing
(with prepared nitrogen heterocycle reactive dyes containing thio and quaternary ammonium groups)

IT Textiles
(wool; reactive dyeing with prepared nitrogen heterocycle reactive dyes containing thio and quaternary ammonium groups)

IT 77-92-9, uses 110-16-7, 2-Butenedioic acid (2Z)-, uses 110-17-8, 2-Butenedioic acid (2E)-, uses 6915-15-7, Malic acid
RL: NUU (Other use, unclassified); USES (Uses)
(buffers for dyeing with prepared nitrogen heterocycle reactive dyes containing thio and quaternary ammonium groups)

IT 55-22-1DP, Isonicotinic acid, reaction products with halogen-containing dyes and thiols 59-67-6DP, Nicotinic acid, reaction products with halogen-containing dyes and thiols 60-24-2DP, Mercaptoethanol, reaction products with halogen-containing dyes and amines 68-11-1DP, Mercaptoacetic acid, reaction products with halogen-containing dyes and amines 70-49-5DP, Mercaptosuccinic acid, reaction products with halogen-containing dyes and amines 108-77-0DP, Cyanuric chloride, reaction products with sulfatoethylsulfonylaniline, halogen-containing dyes, thiols and amines 123-81-9DP, Ethylene glycol bis(thioglycolate), reaction products with halogen-containing dyes and amines 280-57-9DP, DABCO, reaction products with halogen-containing dyes and thiols 1118-68-9DP, Dimethylaminoacetic acid, reaction products with halogen-containing dyes and thiols 2494-89-5DP, 4-(2-Sulfatoethylsulfonyl)aniline, reaction products with cyanuric chloride, halogen-containing dyes, thiols and amines 57583-69-4DP, Procion Red MX 8B, reaction products with thiols and amines 71902-16-4DP, Drimarene Brilliant Red K 4BL, reaction products with thiols and amines 246220-94-0DP, Drimalan Red F-B, reaction products with thiols and amines 246255-73-2P 246255-74-3P 246255-76-5P 246255-78-7DP, reaction products with halogen-containing dyes and amines
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye; production of nitrogen heterocycle reactive dyes containing thio and quaternary ammonium groups)

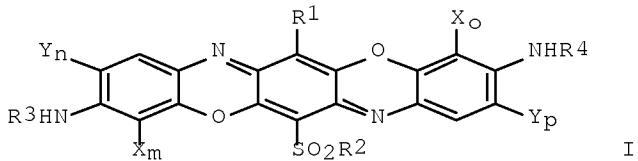
IT 51-85-4, Cystamine 59-67-6, Nicotinic acid, reactions 68-11-1, Thioglycolic acid, reactions 106-50-3, 1,4-Benzene diamine, reactions 108-77-0, Cyanuric chloride 2494-89-5, 4-(2-Sulfatoethylsulfonyl)aniline 70865-29-1, Procion Yellow MX 8G 204995-91-5, Levafix Golden Yellow E-G
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; production of nitrogen heterocycle reactive dyes containing thio and quaternary ammonium groups)

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 13 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1999:194151 HCPLUS Full-text
DOCUMENT NUMBER: 130:253669
TITLE: Novel triphenodioxazine dyes, their precursors, their preparation and their use
INVENTOR(S): Kunde, Klaus
PATENT ASSIGNEE(S): Bayer A.-G., Germany

SOURCE: PCT Int. Appl., 32 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
WO 9912937	A2	19990318	WO 1998-EP5528	19980901 <--
WO 9912937	A3	19990610		
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 19739983	A1	19990318	DE 1997-19739983	19970911 <--
AU 9894390	A	19990329	AU 1998-94390	19980901 <--
PRIORITY APPLN. INFO.:			DE 1997-19739983	A 19970911 <--
			WO 1998-EP5528	W 19980901 <--
OTHER SOURCE(S):	MARPAT 130:253669			
GI				



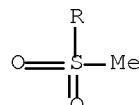
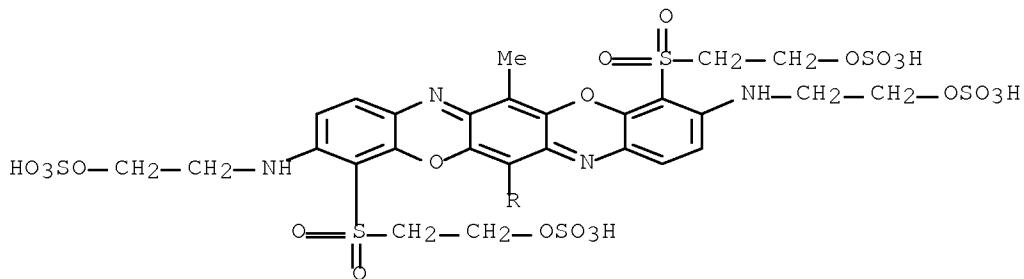
AB The triphenodioxazines (I; R1 = optionally substituted C1-4-alkyl or Ph; R2 = C1-4-alkyl, optionally substituted Ph; R3, R4 = H, Me, carboxy- or sulfomethyl, optionally substituted C2-4-alkyl; Xo, Xm, Yn, Yp = SO3H, CO2H, hydroxyethylsulfonyl, sulfatoethylsulfonyl; m, n, o, p = 0, 1; m + n = 1; o + p = 1) are obtained from dihydroxydiiminocyclohexadiene precursors which may be in turn obtained from hydroquinones or quinones and p-phenylenediamines or their precursors. These novel triphenodioxazines are used for dyeing and imprinting of cellulosic materials, natural and synthetic polyamides, and leather. In examples, I (R1 = R2 = Me; R3 = R4 = 2-aminoethyl; X = SO3H; m = o = 1; n = p = 0), I (R1 = R2 = Me; R3 = R4 = H; X = SO3H; m = o = 1; n = p = 0), and I (R1 = R2 = Me; R3 = R4 = 2-sulfatoethyl; X = 2-sulfatoethylsulfonyl; m = o = 1; n = p = 0) were obtained.

IT 221345-44-4P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (blue dye; preparation of triphenodioxazine dyes for textiles and leather)

RN 221345-44-4 HCPLUS

CN Ethanol, 2,2'-[[6-methyl-13-(methylsulfonyl)-3,10-bis[[2-(sulfoxyethyl]amino]-4,11-triphenodioxazinediyl]bis(sulfonyl)]bis-(hydrogen sulfate) (ester) (9CI) (CA INDEX NAME)

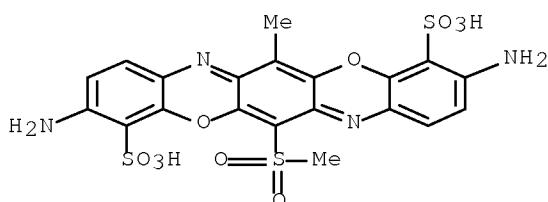


IT 221345-42-2P 221345-43-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye; preparation of triphenodioxazine dyes for textiles and leather
)

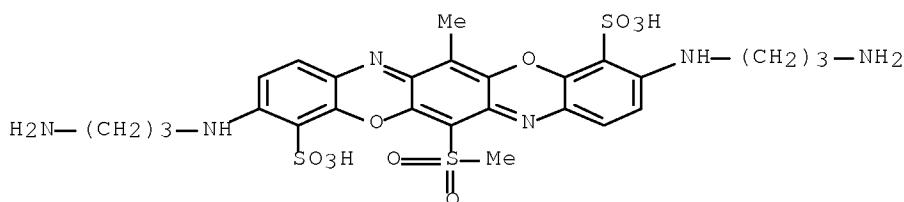
RN 221345-42-2 HCAPLUS

CN 4,11-Triphenodioxazinedisulfonic acid,
3,10-diamino-6-methyl-13-(methylsulfonyl)- (CA INDEX NAME)



RN 221345-43-3 HCAPLUS

CN 4,11-Triphenodioxazinedisulfonic acid,
3,10-bis[(3-aminopropyl)amino]-6-methyl-13-(methylsulfonyl)- (CA INDEX NAME)

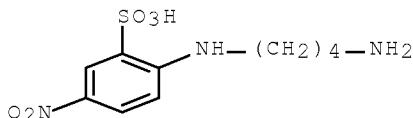


11/628659

IT 221345-11-5P, 2-(4-Aminobutylamino)-5-nitrobenzenesulfonic acid
221345-13-7P, 2-[N-Acetyl-N-(4-Aminobutyl)amino]-5-nitrobenzenesulfonic acid 221345-15-9P,
2-[N-Acetyl-N-(4-Aminobutyl)amino]-5-aminobenzenesulfonic acid
221345-17-1P, 2-[N-Acetyl-N-(2-Aminoethyl)amino]-5-nitrobenzenesulfonic acid 221345-19-3P,
2-[N-Acetyl-N-(3-Aminopropyl)amino]-5-nitrobenzenesulfonic acid
221345-21-7P, 2-[N-Acetyl-N-(2-Aminoethyl)amino]-5-aminobenzenesulfonic acid
221345-27-3P 221345-30-8P 221345-32-0P
221345-35-3P 221345-37-5P 221345-39-7P
221345-40-0P 221345-41-1P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of triphenodioxazine dyes for textiles and leather)

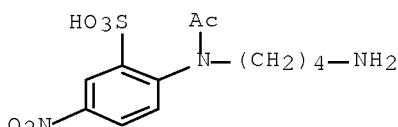
RN 221345-11-5 HCPLUS

CN Benzenesulfonic acid, 2-[(4-aminobutyl)amino]-5-nitro- (CA INDEX NAME)



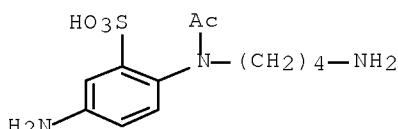
RN 221345-13-7 HCPLUS

CN Benzenesulfonic acid, 2-[acetyl(4-aminobutyl)amino]-5-nitro- (CA INDEX NAME)



RN 221345-15-9 HCPLUS

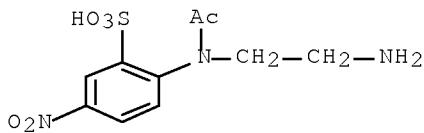
CN Benzenesulfonic acid, 2-[acetyl(4-aminobutyl)amino]-5-amino- (CA INDEX NAME)



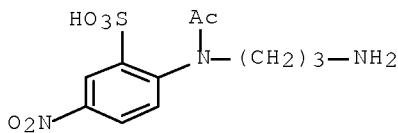
RN 221345-17-1 HCPLUS

CN Benzenesulfonic acid, 2-[acetyl(2-aminoethyl)amino]-5-nitro- (CA INDEX NAME)

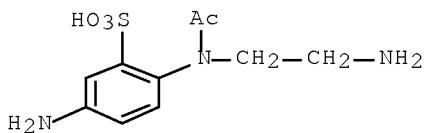
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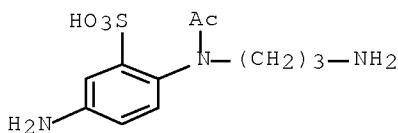
RN 221345-19-3 HCPLUS
 CN Benzenesulfonic acid, 2-[acetyl(3-aminopropyl)amino]-5-nitro- (CA INDEX
 NAME)



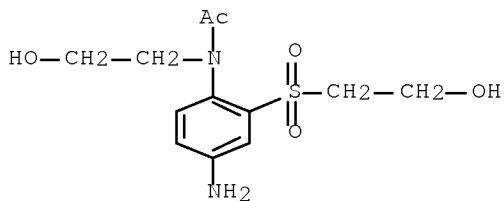
RN 221345-21-7 HCPLUS
 CN Benzenesulfonic acid, 2-[acetyl(2-aminoethyl)amino]-5-amino- (CA INDEX
 NAME)



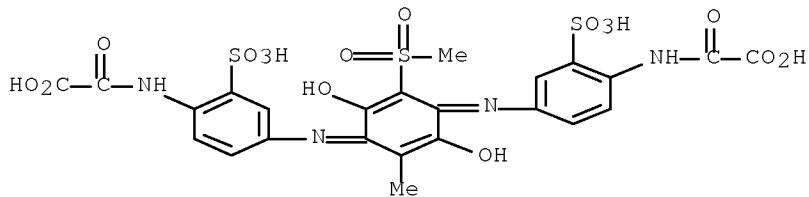
RN 221345-23-9 HCPLUS
 CN Benzenesulfonic acid, 2-[acetyl(3-aminopropyl)amino]-5-amino- (CA INDEX
 NAME)



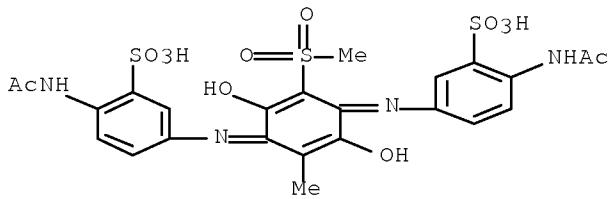
RN 221345-27-3 HCPLUS
 CN Acetamide, N-[4-amino-2-[(2-hydroxyethyl)sulfonyl]phenyl]-N-(2-hydroxyethyl)- (CA INDEX NAME)



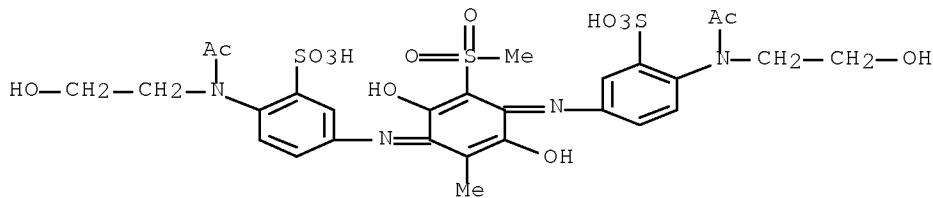
RN 221345-30-8 HCAPLUS
 CN Acetic acid, 2,2'-[[2,5-dihydroxy-3-methyl-6-(methylsulfonyl)-2,5-cyclohexadiene-1,4-diylidene]bis[nitrilo(2-sulfo-4,1-phenylene)imino]]bis[2-oxo- (9CI) (CA INDEX NAME)]



RN 221345-32-0 HCAPLUS
 CN Benzenesulfonic acid, 3,3'-[[2,5-dihydroxy-3-methyl-6-(methylsulfonyl)-2,5-cyclohexadiene-1,4-diylidene]dinitrilo]bis[6-(acetylamino)- (9CI) (CA INDEX NAME)]

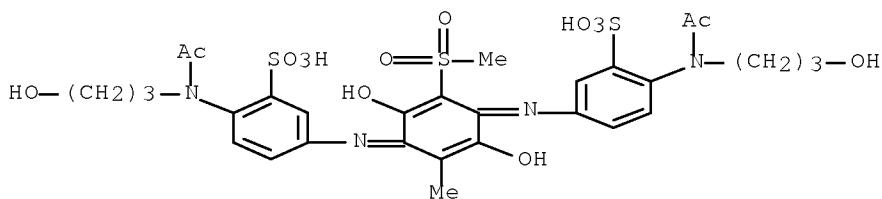


RN 221345-35-3 HCAPLUS
 CN Benzenesulfonic acid, 3,3'-[[2,5-dihydroxy-3-methyl-6-(methylsulfonyl)-2,5-cyclohexadiene-1,4-diylidene]dinitrilo]bis[6-[acetyl(2-hydroxyethyl)amino]- (9CI) (CA INDEX NAME)]



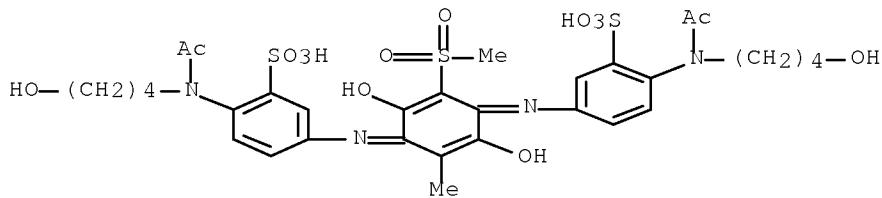
RN 221345-37-5 HCAPLUS

CN Benzenesulfonic acid, 3,3'-[[2,5-dihydroxy-3-methyl-6-(methylsulfonyl)-2,5-cyclohexadiene-1,4-diyldene]dinitrilo]bis[6-[acetyl(3-hydroxypropyl)amino]- (9CI) (CA INDEX NAME)



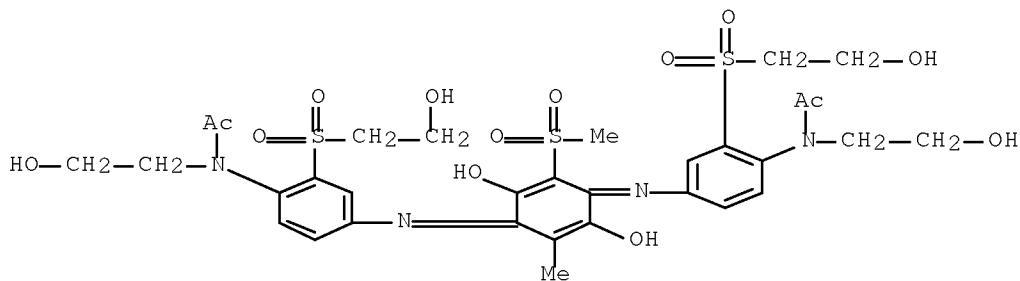
RN 221345-39-7 HCAPLUS

CN Benzenesulfonic acid, 3,3'-[[2,5-dihydroxy-3-methyl-6-(methylsulfonyl)-2,5-cyclohexadiene-1,4-diyldene]dinitrilo]bis[6-[acetyl(4-hydroxybutyl)amino]- (9CI) (CA INDEX NAME)



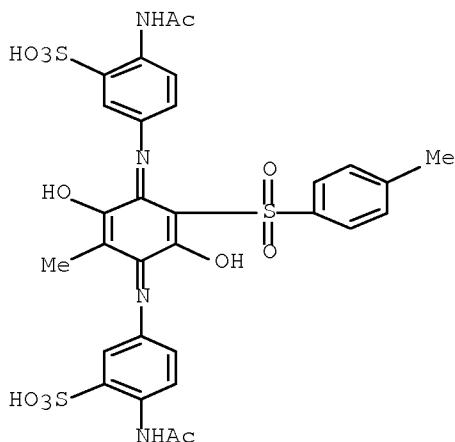
RN 221345-40-0 HCAPLUS

CN Acetamide, N-[4-[4-[4-[acetyl(2-hydroxyethyl)amino]-3-[(2-hydroxyethyl)sulfonyl]phenyl]imino]-2,5-dihydroxy-3-methyl-6-(methylsulfonyl)-2,5-cyclohexadien-1-ylidene]amino]-2-[(2-hydroxyethyl)sulfonyl]phenyl]-N-(2-hydroxyethyl)- (9CI) (CA INDEX NAME)



RN 221345-41-1 HCAPLUS

CN Benzenesulfonic acid, 3,3'-[[2,5-dihydroxy-3-methyl-6-[(4-methylphenyl)sulfonyl]-2,5-cyclohexadiene-1,4-diylidene]dinitrilo]bis[6-(acetylamino)-] (9CI) (CA INDEX NAME)

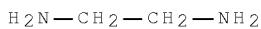


IT 107-15-3, Ethylenediamine, reactions 109-76-2,
 1,3-Diaminopropane 110-60-1, 1,4-Diaminobutane 946-30-5
 , Sodium 2-chloro-5-nitrobenzenesulfonate 6364-15-4
 6973-05-3, 2-Acetamido-5-aminobenzenesulfonic acid
 221345-25-1

RL: RCT (Reactant); RACT (Reactant or reagent)
 (starting material; preparation of triphenodioxazine dyes for textiles and leather)

RN 107-15-3 HCAPLUS

CN 1,2-Ethanediamine (CA INDEX NAME)

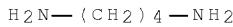


RN 109-76-2 HCAPLUS

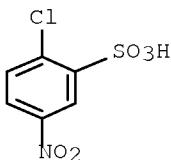
CN 1,3-Propanediamine (CA INDEX NAME)



RN 110-60-1 HCAPLUS
 CN 1, 4-Butanediamine (CA INDEX NAME)

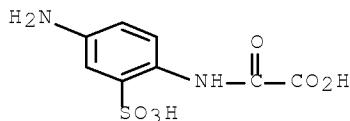


RN 946-30-5 HCAPLUS
 CN Benzenesulfonic acid, 2-chloro-5-nitro-, sodium salt (1:1) (CA INDEX NAME)

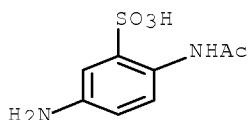


● Na

RN 6364-15-4 HCAPLUS
 CN Acetic acid, 2-[(4-amino-2-sulfophenyl)amino]-2-oxo- (CA INDEX NAME)

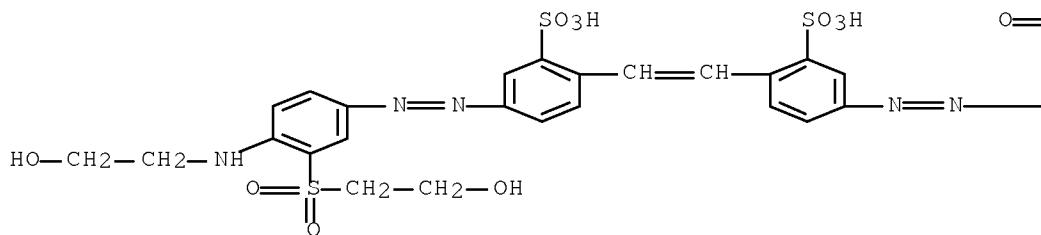


RN 6973-05-3 HCAPLUS
 CN Benzenesulfonic acid, 2-(acetylamino)-5-amino- (CA INDEX NAME)

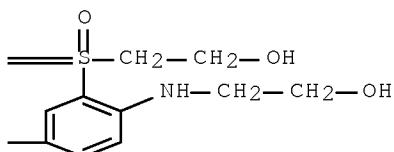


RN 221345-25-1 HCAPLUS
 CN Benzenesulfonic acid, 2,2'-(1,2-ethenediyl)bis[5-[[4-[(2-hydroxyethyl)amino]-3-[(2-hydroxyethyl)sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C07D498-00
 CC 41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
 Sensitizers)
 Section cross-reference(s): 40, 45
 ST triphenodioxazine dye prepn textile leather application
 IT Reactive dyeing
 (of cotton textiles with prepared triphenodioxazine dyes)
 IT Dyeing
 (of leather and textiles with prepared triphenodioxazine dyes)
 IT Leather
 (preparation of triphenodioxazine dyes for)
 IT Dyes
 (preparation of triphenodioxazine dyes for textiles and leather)
 IT Reactive dyes
 (vinyl sulfone; preparation of triphenodioxazine dyes for textiles and
 leather)
 IT 221345-44-4P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (blue dye; preparation of triphenodioxazine dyes for textiles and
 leather)
 IT 221345-42-2P 221345-43-3P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (dye; preparation of triphenodioxazine dyes for textiles and leather
)
 IT 221345-07-9P, 2-Methyl-5-(methylsulfonyl)hydroquinone 221345-09-1P,
 2-Methyl-5-(4-methylphenylsulfonyl)hydroquinone 221345-11-5P,
 2-(4-Aminobutylamino)-5-nitrobenzenesulfonic acid 221345-13-7P,
 2-[N-Acetyl-N-(4-Aminobutyl)amino]-5-nitrobenzenesulfonic acid
 221345-15-9P, 2-[N-Acetyl-N-(4-Aminobutyl)amino]-5-
 aminobenzenesulfonic acid 221345-17-1P,

2-[N-Acetyl-N-(2-Aminoethyl)amino]-5-nitrobenzenesulfonic acid
221345-19-3P, 2-[N-Acetyl-N-(3-Aminopropyl)amino]-5-nitrobenzenesulfonic acid 221345-21-7P,

2-[N-Acetyl-N-(2-Aminoethyl)amino]-5-aminobenzenesulfonic acid
221345-23-9P, 2-[N-Acetyl-N-(3-Aminopropyl)amino]-5-aminobenzenesulfonic acid 221345-27-3P 221345-30-8P
221345-32-0P 221345-35-3P 221345-37-5P
221345-39-7P 221345-40-0P 221345-41-1P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of triphenodioxazine dyes for textiles and leather)

IT 64-19-7, Acetic acid, reactions 95-71-6, Methylhydroquinone
107-15-3, Ethylenediamine, reactions 109-76-2,
1,3-Diaminopropane 110-60-1, 1,4-Diaminobutane 824-79-3,
Sodium p-toluenesulfinate 946-30-5, Sodium
2-chloro-5-nitrobenzenesulfonate 6364-15-4 6973-05-3,
2-Acetamido-5-aminobenzenesulfonic acid 20277-69-4, Sodium
methylsulfinate 221345-25-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material; preparation of triphenodioxazine dyes for textiles and leather)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 14 OF 24 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:175784 HCAPLUS Full-text

DOCUMENT NUMBER: 128:193734

ORIGINAL REFERENCE NO.: 128:38265a, 38268a

TITLE: Mixtures of dyes and their use

INVENTOR(S): Adam, Jean-Marie; Hurter, Rudolf

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: Eur. Pat. Appl., 30 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 826743	A2	19980304	EP 1997-810580	19970819 <--
EP 826743	A3	19981209		
EP 826743	B1	20020918		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 10088021	A	19980407	JP 1997-221395	19970818 <--
JP 4056593	B2	20080305		

PRIORITY APPLN. INFO.: CH 1996-2087 A 19960826 <--

OTHER SOURCE(S): MARPAT 128:193734

AB Dye mixts. for printing and dyeing of fibrous materials contain at least one dye having triazinediamino groups and at least one of another dye having either triazinediamino groups or amide linkages. Level dyeings on polyamide with good fastness are obtained with these reactive dye mixts. In a typical dye preparation, 1,3-phenylenediamine-4-sulfonic acid was condensed (1:1) with cyanuric chloride and the product was diazotized and coupled with 2-naphthylamine-5-sulfonic acid; condensation of the resulting azo dye with PhNHEt gave a reactive chlorotriazine dye. Dyeing of polyamide, wool, and leather is exemplified.

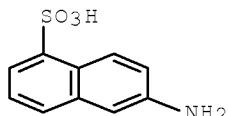
IT 81-05-0, 2-Naphthylamine-5-sulfonic acid

11/628659

RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling component; preparation of reactive dyes for
dyeing mixts. for polyamide)

RN 81-05-0 HCPLUS

CN 1-Naphthalenesulfonic acid, 6-amino- (CA INDEX NAME)



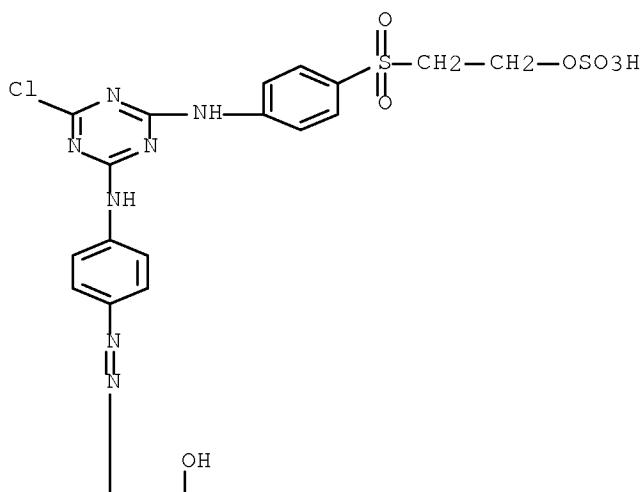
IT 168544-29-4P 178493-40-8P 195306-72-0P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye; preparation of reactive dyes for
dyeing mixts. for polyamide)

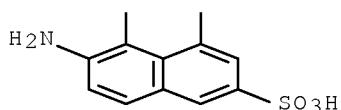
RN 168544-29-4 HCPLUS

CN 2-Naphthalenesulfonic acid, 6-amino-5-[2-[4-[[4-chloro-6-[[4-[[2-
(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-
yl]amino]phenyl]diazenyl]-4-hydroxy- (CA INDEX NAME)

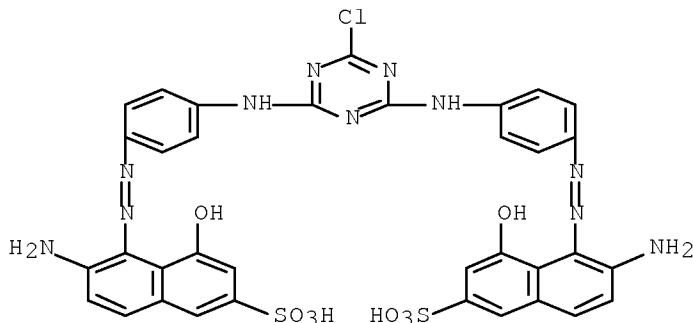
PAGE 1-A



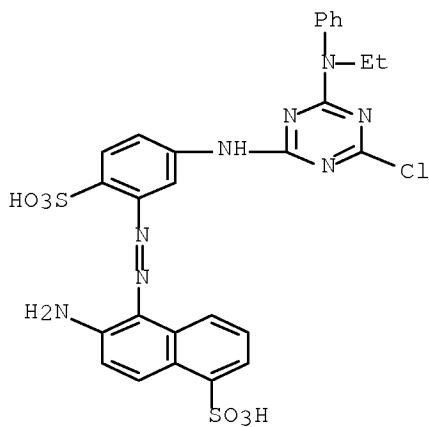
PAGE 2-A



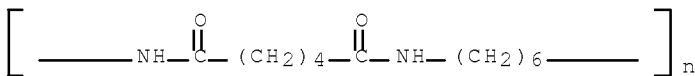
RN 178493-40-8 HCPLUS
 CN 2-Naphthalenesulfonic acid, 5,5'-[(6-chloro-1,3,5-triazine-2,4-diyl)bis(imino-4,1-phenyleneazo)]bis[6-amino-4-hydroxy- (9CI) (CA INDEX NAME)



RN 195306-72-0 HCPLUS
 CN 1-Naphthalenesulfonic acid, 6-amino-5-[2-[5-[4-chloro-6-(ethylphenylamino)-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]diazenyl- (CA INDEX NAME)



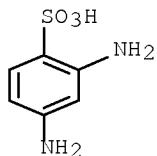
IT 32131-17-2, Nylon 66, processes
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (fabrics; dyeing and printing with prepared reactive
 dye mixts.)
 RN 32131-17-2 HCPLUS
 CN Poly[imino(1,6-dioxo-1,6-hexanediyil)imino-1,6-hexanediyil] (CA INDEX NAME)



IT 88-63-1, 1,3-Phenylenediamine-4-sulfonic acid 103-69-5,
 N-Ethylaniline 108-77-0, Cyanuric chloride 2494-89-5,
 4-(β -Sulfatoethylsulfonyl)aniline 59836-94-1,
 6-Amino-5-(4-aminophenylazo)-4-hydroxy-2-naphthalenesulfonic acid
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (starting material; preparation of reactive dyes for
 dyeing mixts. for polyamide)

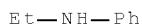
RN 88-63-1 HCPLUS

CN Benzenesulfonic acid, 2,4-diamino- (CA INDEX NAME)



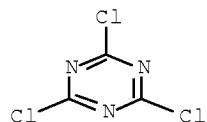
RN 103-69-5 HCPLUS

CN Benzenamine, N-ethyl- (CA INDEX NAME)



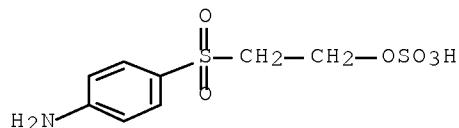
RN 108-77-0 HCPLUS

CN 1,3,5-Triazine, 2,4,6-trichloro- (CA INDEX NAME)



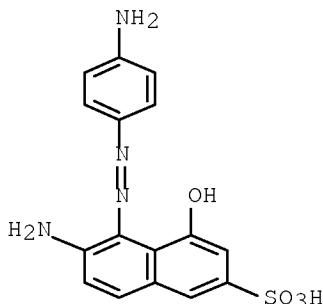
RN 2494-89-5 HCPLUS

CN Ethanol, 2-[(4-aminophenyl)sulfonyl]-, 1-(hydrogen sulfate) (CA INDEX NAME)



RN 59836-94-1 HCPLUS

CN 2-Naphthalenesulfonic acid, 6-amino-5-[2-(4-aminophenyl)diazenyl]-4-hydroxy- (CA INDEX NAME)



IC ICM C09B067-22
 ICS D06P003-10; C09B062-04

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
 Section cross-reference(s): 40, 45

ST reactive dye mixt polyamide dyeing printing;
 azo reactive dye prepn

IT Leather
 (dyeing and printing with prepared reactive dye mixts.)

IT Polyamides, processes
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (fabrics; dyeing and printing with prepared reactive dye mixts.)

IT Polyamide fibers, uses
 RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (fabrics; dyeing and printing with prepared reactive dye mixts.)

IT Reactive dyeing
 (of polyamide, wool and leather with prepared reactive dye mixts.)

IT Reactive azo dyes
 Reactive dyes
 (preparation of reactive dyes for dyeing mixts. for polyamide)

IT Textile printing
 (reactive; of polyamide, wool and leather with prepared reactive dye mixts.)

IT Textiles
 (wool; dyeing and printing with prepared reactive dye mixts.)

IT 81-05-0, 2-Naphthylamine-5-sulfonic acid
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling component; preparation of reactive dyes for dyeing mixts. for polyamide)

IT 168544-29-4P 178493-40-8P 195306-72-0P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (dye; preparation of reactive dyes for dyeing mixts. for polyamide)

IT 32131-17-2, Nylon 66, processes
 RL: PEP (Physical, engineering or chemical process); PROC (Process)
 (fabrics; dyeing and printing with prepared reactive
 dye mixts.)

IT 88-63-1, 1,3-Phenylenediamine-4-sulfonic acid 103-69-5,
 N-Ethylaniline 108-77-0, Cyanuric chloride 2494-89-5,
 4-(β -Sulfatoethylsulfonyl)aniline 59836-94-1,
 6-Amino-5-(4-aminophenylazo)-4-hydroxy-2-naphthalenesulfonic acid
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (starting material; preparation of reactive dyes for
 dyeing mixts. for polyamide)

L31 ANSWER 15 OF 24 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:339272 HCAPLUS Full-text

DOCUMENT NUMBER: 125:36240

ORIGINAL REFERENCE NO.: 125:7028h,7029a

TITLE: The use of chitosan in the dyeing of full
 chrome leather with reactive
 dyes

AUTHOR(S): Burkinshaw, S. M.; Jarvis, A. N.

CORPORATE SOURCE: Specialty Chem. Group, The University, Leeds, LS2 9JT,
 UK

SOURCE: Dyes and Pigments (1996), 31(1), 35-52
 CODEN: DYPIDX; ISSN: 0143-7208

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

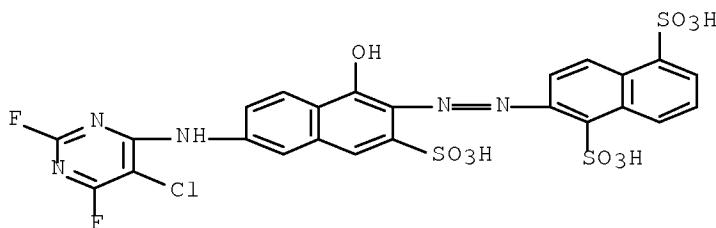
AB Treatment of chrome grain leather with two grades of chitosan enhanced the depth of shade obtained using three difluorochloropyrimidine and three β -sulphatoethylsulfone reactive dyes. The pretreated leather was of deeper or similar hue to that of dyed untreated leather and the wash fastness of the pretreated dyed leather was comparable. The greater color strength of the dyed, pretreated leather was attributed to increased dye-leather substantivity arising from the presence of the cationic polymer at the surface of the leather. Application of an unreactive, hydrolyzed version of one of the dyes to the chitosan-treated leather revealed that the pretreatment also imparted addnl. nucleophilic groups that were available for covalent attachment of the reactive dyes.

IT 72828-73-0, C.I. Reactive Orange 64

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC
 (Process); RACT (Reactant or reagent)
 (Drimarene Brilliant Orange K 3R; in dyeing of
 chitosan-pretreated leather)

RN 72828-73-0 HCAPLUS

CN 1,5-Naphthalenedisulfonic acid, 2-[2-[6-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-, sodium salt (1:3) (CA INDEX NAME)



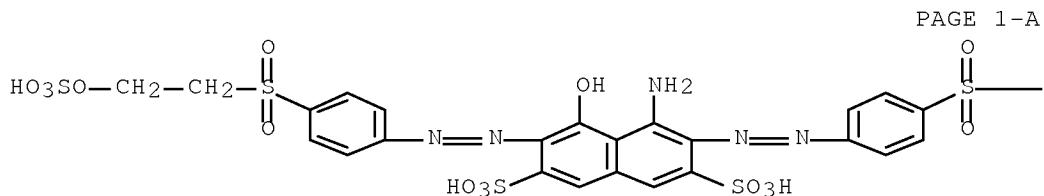
3 Na

IT 17095-24-8, C.I. Reactive Black 5

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(Remazol Black B; in dyeing of chitosan-pretreated leather)

RN 17095-24-8 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[2-[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]-, sodium salt (1:4) (CA INDEX NAME)



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• 4 Na

PAGE 1-B

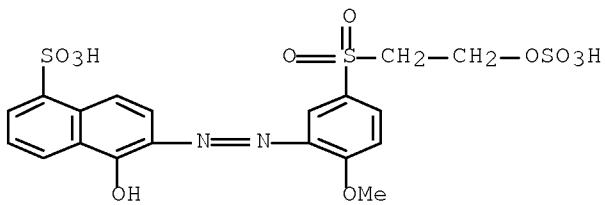
$$-\text{CH}_2-\text{CH}_2-\text{OSO}_3\text{H}$$

IT 19526-81-9

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(Remazol Red RB; in dyeing of chitosan-pretreated leather)

RN 19526-81-9 HCAPLUS

CN 1-Naphthalenesulfonic acid, 5-hydroxy-6-[2-[2-methoxy-5-[(2-sulfoxy)ethyl]sulfonyl]phenyl]diazenyl-, sodium salt (1:2) (CA INDEX NAME)



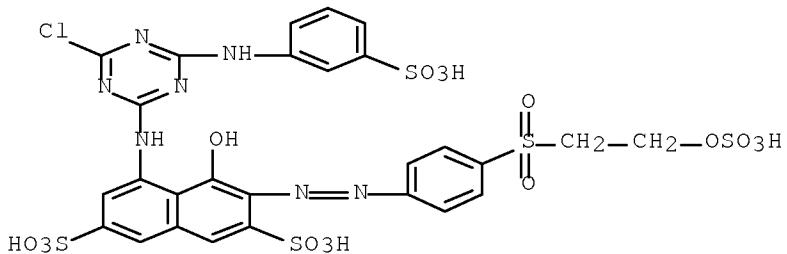
●2 Na

IT 145017-98-7, C.I. Reactive Red 198

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(in dyeing of chitosan-pretreated leather)

RN 145017-98-7 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 5-[[4-chloro-6-[(3-sulfophenyl)amino]-1,3,5-triazin-2-yl]amino]-4-hydroxy-3-[2-[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]-, sodium salt (1:4) (CA INDEX NAME)



●4 Na

CC 45-2 (Industrial Organic Chemicals, Leather, Fats, and Waxes)

Section cross-reference(s): 44

ST dyeing chitosan pretreated leather

IT Leather

(dyeing of chitosan-pretreated leather with reactive dyes)

IT Dyeing

(of chitosan-pretreated leather with reactive dyes)

IT 61969-09-3, C.I. Reactive Green 21

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(Drimarene Brilliant Green K 5BL; in dyeing of chitosan-pretreated leather)

IT 72828-73-0, C.I. Reactive Orange 64

RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
(Drimarene Brilliant Orange K 3R; in dyeing of chitosan-pretreated leather)

IT 71902-16-4, C.I. Reactive Red 147
 RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
 (Drimarene Brilliant Red 4BL-CDG; in dyeing of chitosan-pretreated leather)

IT 17095-24-8, C.I. Reactive Black 5
 RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
 (Remazol Black B; in dyeing of chitosan-pretreated leather)

IT 19526-81-9
 RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
 (Remazol Red RB; in dyeing of chitosan-pretreated leather)

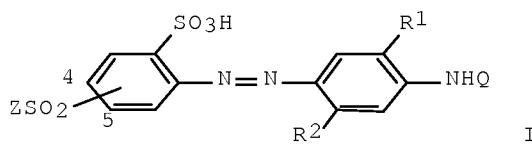
IT 9012-76-4, Chitosan
 RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
 (dyeing of chitosan-pretreated leather with reactive dyes)

IT 145017-98-7, C.I. Reactive Red 198 177772-87-1,
 Remazol Brilliant Blue FB
 RL: PEP (Physical, engineering or chemical process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
 (in dyeing of chitosan-pretreated leather)

L31 ANSWER 16 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:294756 HCPLUS Full-text
 DOCUMENT NUMBER: 124:319677
 ORIGINAL REFERENCE NO.: 124:59241a,59244a
 TITLE: Bifunctionally reactive monoazo dyes
 , their preparation and use
 INVENTOR(S): Lehr, Friedrich
 PATENT ASSIGNEE(S): Sandoz Ltd., Switz.; Sandoz-Patent-Gmbh;
 Sandoz-Erfindungen Verwaltungsgesellschaft Mbh
 SOURCE: PCT Int. Appl., 31 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9602593	A1	19960201	WO 1995-EP2779	19950714 <--
W: BR, CN, JP, KR, MX, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
DE 4425222	A1	19960118	DE 1994-4425222	19940716 <--
DE 4435380	A1	19960411	DE 1994-4435380	19941004 <--
EP 772652	A1	19970514	EP 1995-926893	19950714 <--
EP 772652	B1	20010829		
R: CH, DE, ES, FR, GB, IT, LI, PT				
BR 9508283	A	19971223	BR 1995-8283	19950714 <--
JP 10504330	T	19980428	JP 1996-504698	19950714 <--
JP 3829992	B2	20061004		
US 5747657	A	19980505	US 1997-765786	19970114 <--
PRIORITY APPLN. INFO.:			DE 1994-4425222	A 19940716 <--
			DE 1994-4435380	A 19941004 <--
			WO 1995-EP2779	W 19950714 <--
OTHER SOURCE(S):	CASREACT 124:319677; MARPAT 124:319677			
GI				

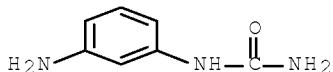


AB The dyes have the formula I, where R1 signifies H, Me, OMe, or OEt, R2 signifies H, Me, NHCONH2 or NHAc, Q signifies 2,6-dichloro-5-cyano-4-pyrimidinyl, (5-chloro-2,6-difluoro-4-pyrimidinyl, or 4-fluoro-6-morpholino-s-triazin-2-yl, Z signifies CH:CH2 or a precursor and the SO2Z group may be bonded in position 4 or 5. The I are useful in printing or dyeing HO- or N-containing organic substrates, especially cotton and leather. Thus, 3-HO3SOCH2CH2SO2C6H4NH2 was sulfonated, diazotized, and coupled with 3-H2NCONHC6H4NH2, and the product was condensed with 5-chloro-2,4,6-trifluoropyrimidine to give I (R1 = H, R2 = NHCONH2, Q = 5-chloro-2,6-difluoro-4-pyrimidinyl, Z = CH2CH2OSO3H, SO2Z in position 5), λ_{max} 378 nm in H2O, fast golden yellow on cotton.

IT 25711-72-2, (m-Aminophenyl)urea
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling component; preparation of bifunctionally reactive monoazo dyes for cotton and leather)

RN 25711-72-2 HCPLUS

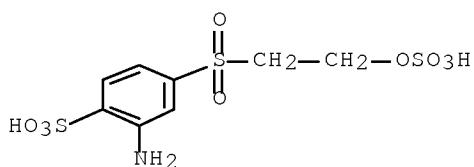
CN Urea, N-(3-aminophenyl)- (CA INDEX NAME)



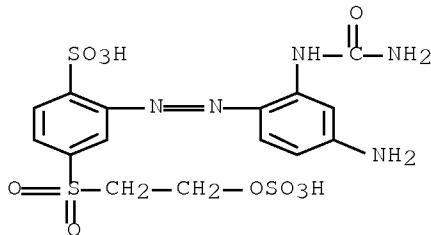
IT 41261-80-7P, 2-Amino-4-(β -sulfatoethylsulfonyl)benzenesulfonic acid 174491-68-0P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; preparation of bifunctionally reactive monoazo dyes for cotton and leather)

RN 41261-80-7 HCPLUS

CN Benzenesulfonic acid, 2-amino-4-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)

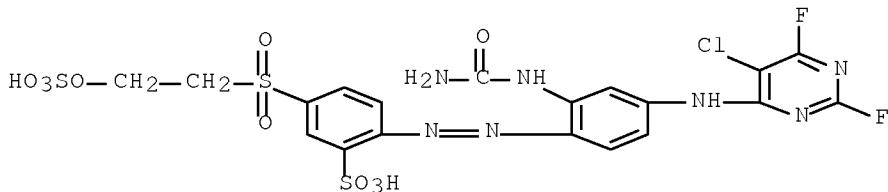


RN 174491-68-0 HCPLUS

CN Benzenesulfonic acid, 2-[2-[4-amino-2-
[(aminocarbonyl)amino]phenyl]diazenyl]-4-[[2-(sulfoxy)ethyl]sulfonyl]-
(CA INDEX NAME)IT 176449-19-7P 176449-20-0P 176449-21-1P
176449-22-2P 176449-23-3P 176449-24-4P
176449-25-5P 176449-26-6P 176449-27-7P
176449-28-8P 176449-29-9P 176449-30-2P
176449-31-3P 176449-32-4P 176449-34-6P
176449-35-7P 176449-36-8P 176449-37-9P
176449-38-0P 176449-40-4P 176449-41-5P
176449-42-6P 176449-43-7P 176449-44-8P
176449-45-9P 176449-46-0P 176449-47-1P
176449-48-2P 177347-90-9PRL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of bifunctionally reactive monoazo dyes for cotton and leather)

RN 176449-19-7 HCPLUS

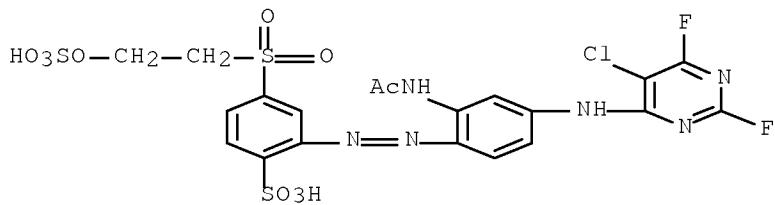
CN Benzenesulfonic acid, 2-[2-[2-[(aminocarbonyl)amino]-4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]phenyl]diazenyl]-5-[[2-(sulfoxy)ethyl]sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-20-0 HCPLUS

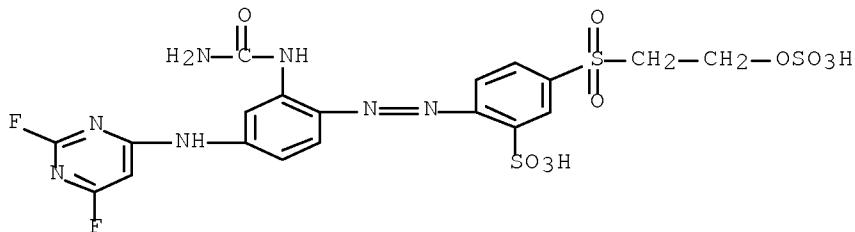
CN Benzenesulfonic acid, 2-[2-[2-(acetylamino)-4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]phenyl]diazenyl]-4-[[2-(sulfoxy)ethyl]sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-21-1 HCPLUS

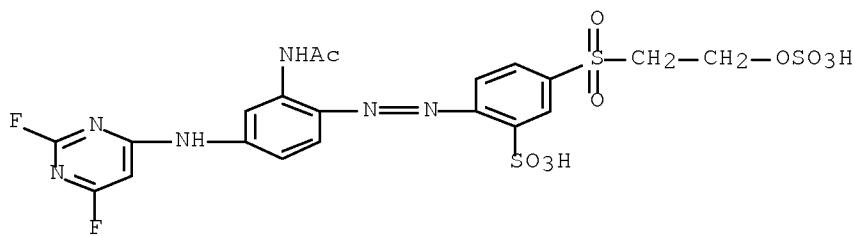
CN Benzenesulfonic acid, 2-[2-[2-[(aminocarbonyl)amino]-4-[(2,6-difluoro-4-pyrimidinyl)amino]phenyl]diazenyl]-5-[[2-(sulfoxy)ethyl]sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-22-2 HCPLUS

CN Benzenesulfonic acid, 2-[2-[2-(acetylamino)-4-[(2,6-difluoro-4-pyrimidinyl)amino]phenyl]diazenyl]-5-[[2-(sulfoxy)ethyl]sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



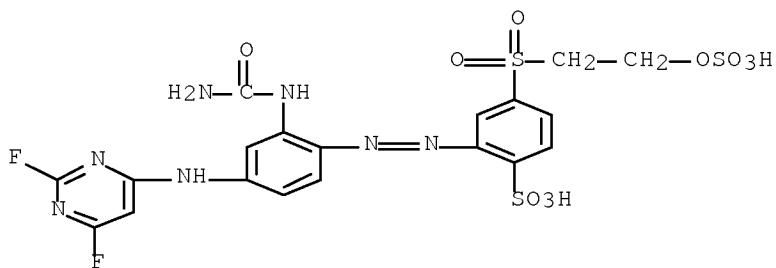
●2 Na

RN 176449-23-3 HCPLUS

CN Benzenesulfonic acid, 2-[2-[2-[(aminocarbonyl)amino]-4-[(2,6-difluoro-4-

11/628659

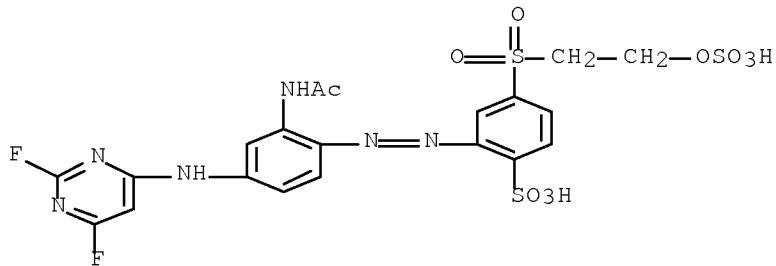
pyrimidinyl)amino]phenyl]diazenyl]-4-[(2-(sulfooxy)ethyl)sulfonyl]-,
sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-24-4 HCAPLUS

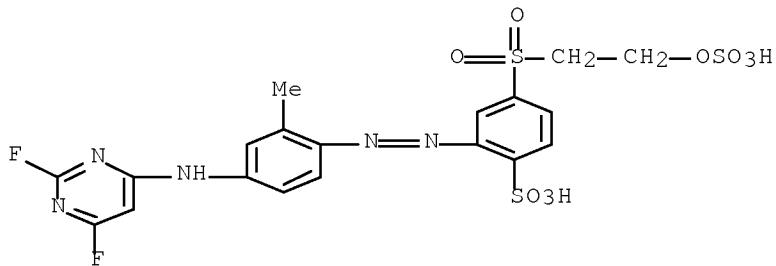
CN Benzenesulfonic acid, 2-[2-[2-(acetylamino)-4-[(2,6-difluoro-4-pyrimidinyl)amino]phenyl]diazenyl]-4-[(2-(sulfooxy)ethyl)sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-25-5 HCAPLUS

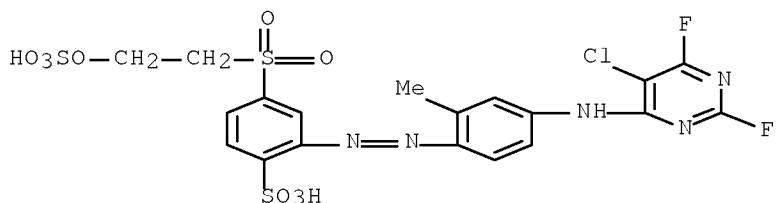
CN Benzenesulfonic acid, 2-[2-[4-[(2,6-difluoro-4-pyrimidinyl)amino]-2-methylphenyl]diazenyl]-4-[(2-(sulfooxy)ethyl)sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-26-6 HCPLUS

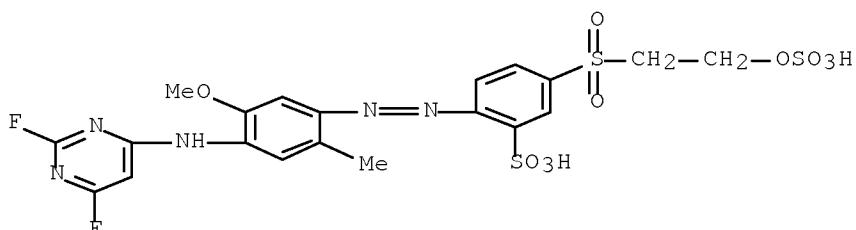
CN Benzenesulfonic acid, 2-[2-[4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]-2-methylphenyl]diazenyl]-4-[(2-sulfoxyethyl)sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-27-7 HCPLUS

CN Benzenesulfonic acid, 2-[2-[4-[(2,6-difluoro-4-pyrimidinyl)amino]-5-methoxy-2-methylphenyl]diazenyl]-5-[(2-sulfoxyethyl)sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)

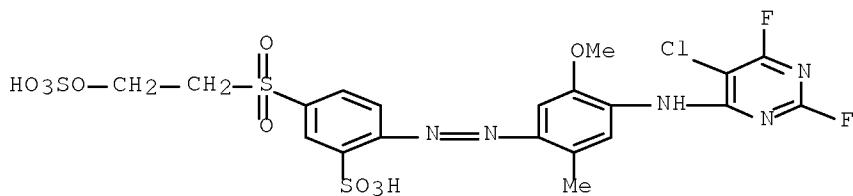


●2 Na

RN 176449-28-8 HCPLUS

11/628659

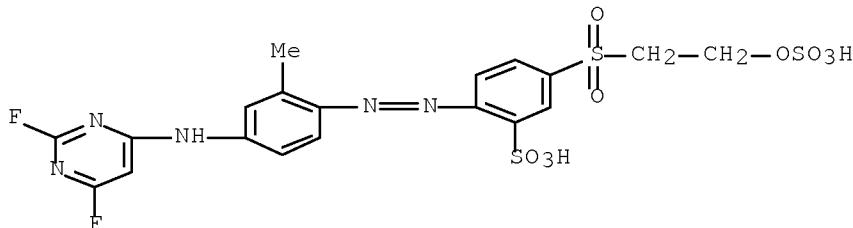
CN Benzenesulfonic acid, 2-[2-[4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]-5-methoxy-2-methylphenyl]diazenyl]-5-[[2-(sulfoxy)ethyl]sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-29-9 HCPLUS

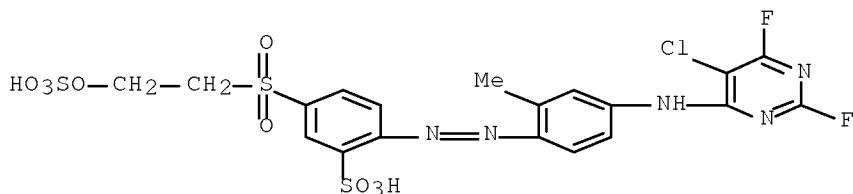
CN Benzenesulfonic acid, 2-[2-[4-[(2,6-difluoro-4-pyrimidinyl)amino]-2-methylphenyl]diazenyl]-5-[[2-(sulfoxy)ethyl]sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-30-2 HCPLUS

CN Benzenesulfonic acid, 2-[2-[4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]-2-methylphenyl]diazenyl]-5-[[2-(sulfoxy)ethyl]sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)

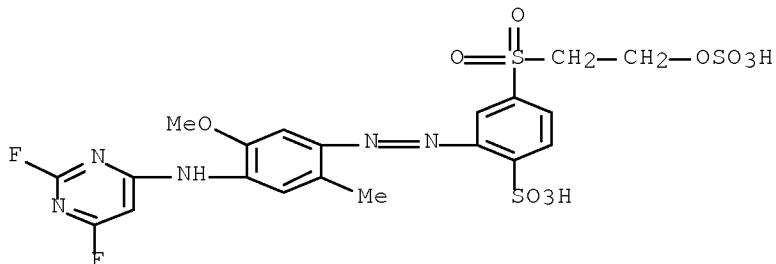


●2 Na

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RN 176449-31-3 HCAPLUS

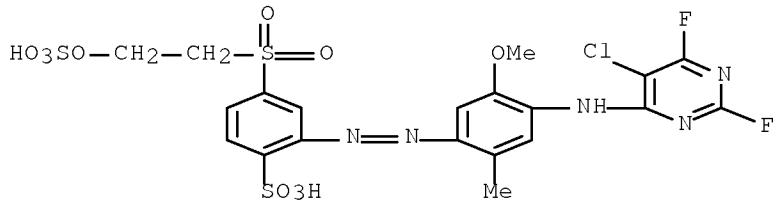
CN Benzenesulfonic acid, 2-[2-[4-[(2,6-difluoro-4-pyrimidinyl)amino]-5-methoxy-2-methylphenyl]diazenyl]-4-[[2-(sulfooxy)ethyl]sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-32-4 HCAPLUS

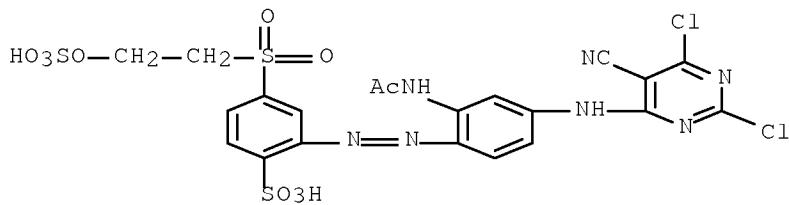
CN Benzenesulfonic acid, 2-[2-[4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]-5-methoxy-2-methylphenyl]diazenyl]-4-[[2-(sulfooxy)ethyl]sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-34-6 HCAPLUS

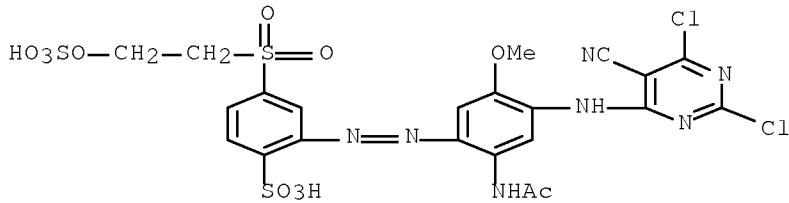
CN Benzenesulfonic acid, 2-[2-[2-(acetylamino)-4-[(2,6-dichloro-5-cyano-4-pyrimidinyl)amino]phenyl]diazenyl]-4-[[2-(sulfooxy)ethyl]sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-35-7 HCAPLUS

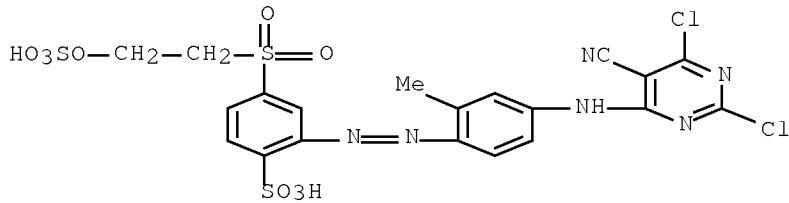
CN Benzenesulfonic acid, 2-[2-[2-(acetylamino)-4-[(2,6-dichloro-5-cyano-4-pyrimidinyl)amino]-5-methoxyphenyl]diazenyl]-4-[[2-(sulfoxy)ethyl]sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-36-8 HCAPLUS

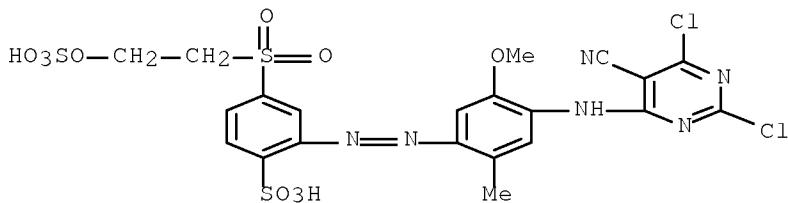
CN Benzenesulfonic acid, 2-[2-[4-[(2,6-dichloro-5-cyano-4-pyrimidinyl)amino]-2-methoxy-2-methylphenyl]diazenyl]-4-[[2-(sulfoxy)ethyl]sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-37-9 HCAPLUS

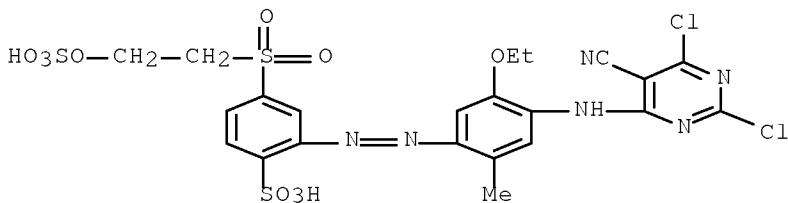
CN Benzenesulfonic acid, 2-[2-[4-[(2,6-dichloro-5-cyano-4-pyrimidinyl)amino]-5-methoxy-2-methylphenyl]diazenyl]-4-[[2-(sulfoxy)ethyl]sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-38-0 HCPLUS

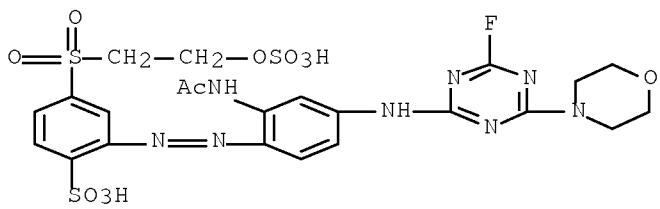
CN Benzenesulfonic acid, 2-[2-[4-[(2,6-dichloro-5-cyano-4-pyrimidinyl)amino]-5-ethoxy-2-methylphenyl]diazenyl]-4-[[2-(sulfoxy)ethyl]sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-40-4 HCPLUS

CN Benzenesulfonic acid, 2-[[2-(acetylamino)-4-[[4-fluoro-6-(4-morpholinyl)-1,3,5-triazin-2-yl]amino]phenyl]azo]-4-[[2-(sulfoxy)ethyl]sulfonyl]-, dipotassium salt (9CI) (CA INDEX NAME)

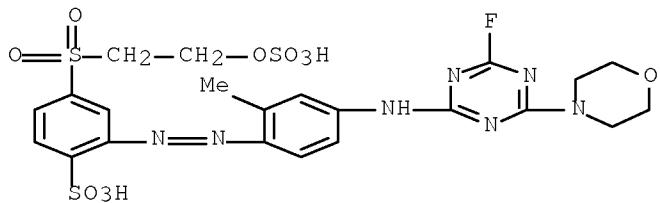


●2 K

RN 176449-41-5 HCPLUS

CN Benzenesulfonic acid, 2-[[4-[[4-fluoro-6-(4-morpholinyl)-1,3,5-triazin-2-

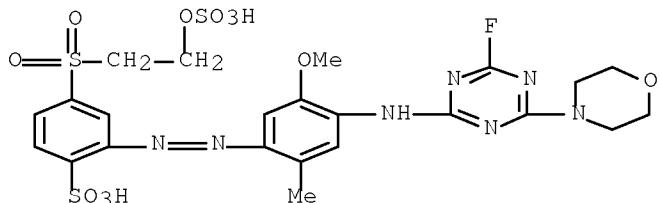
yl]amino]-2-methylphenyl]azo]-4-[[2-(sulfoxy)ethyl]sulfonyl]-,
dipotassium salt (9CI) (CA INDEX NAME)



●2 K

RN 176449-42-6 HCPLUS

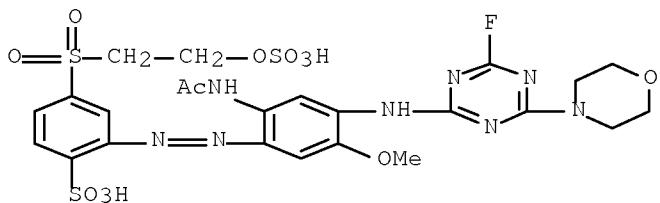
CN Benzenesulfonic acid, 2-[[4-[[4-fluoro-6-(4-morpholinyl)-1,3,5-triazin-2-yl]amino]-5-methoxy-2-methylphenyl]azo]-4-[[2-(sulfoxy)ethyl]sulfonyl]-, dipotassium salt (9CI) (CA INDEX NAME)



●2 K

RN 176449-43-7 HCPLUS

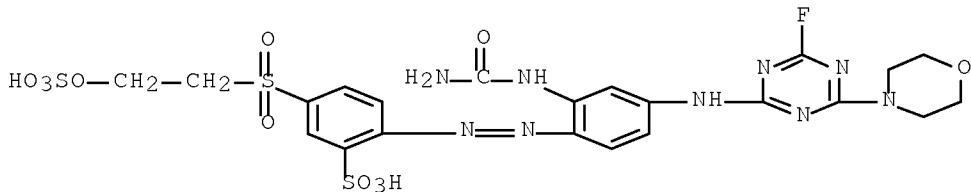
CN Benzenesulfonic acid, 2-[[2-(acetylamino)-4-[[4-fluoro-6-(4-morpholinyl)-1,3,5-triazin-2-yl]amino]-5-methoxyphenyl]azo]-4-[[2-(sulfoxy)ethyl]sulfonyl]-, dipotassium salt (9CI) (CA INDEX NAME)



●2 K

RN 176449-44-8 HCAPLUS

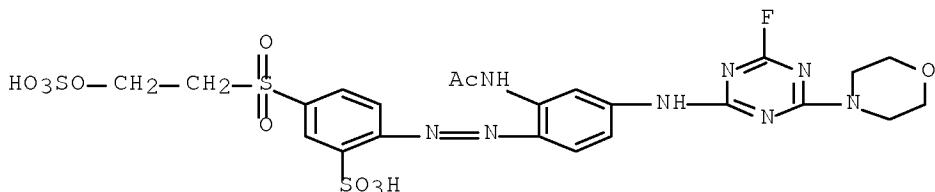
CN Benzenesulfonic acid, 2-[[2-[(aminocarbonyl)amino]-4-[[4-fluoro-6-(4-morpholinyl)-1,3,5-triazin-2-yl]amino]phenyl]azo]-5-[[2-(sulfoxy)ethyl]sulfonyl]-, dipotassium salt (9CI) (CA INDEX NAME)



●2 K

RN 176449-45-9 HCAPLUS

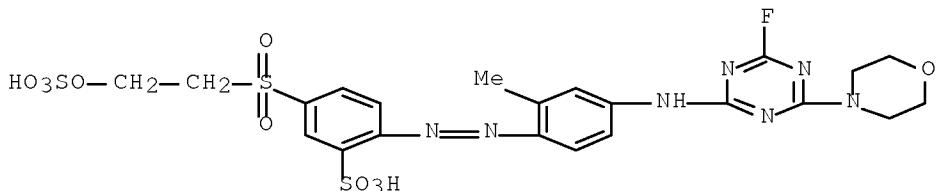
CN Benzenesulfonic acid, 2-[[2-(acetylamino)-4-[[4-fluoro-6-(4-morpholinyl)-1,3,5-triazin-2-yl]amino]phenyl]azo]-5-[[2-(sulfoxy)ethyl]sulfonyl]-, dipotassium salt (9CI) (CA INDEX NAME)



●2 K

RN 176449-46-0 HCAPLUS

CN Benzenesulfonic acid, 2-[[4-[[4-fluoro-6-(4-morpholinyl)-1,3,5-triazin-2-yl]amino]-2-methylphenyl]azo]-5-[[2-(sulfoxy)ethyl]sulfonyl]-, dipotassium salt (9CI) (CA INDEX NAME)

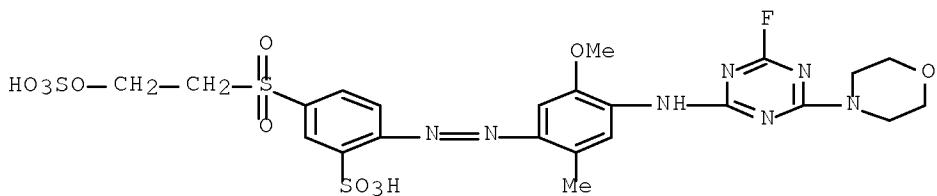


●2 K

RN 176449-47-1 HCAPLUS

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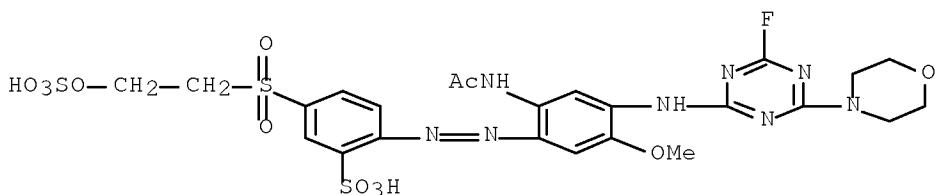
CN Benzenesulfonic acid, 2-[[4-[[4-fluoro-6-(4-morpholinyl)-1,3,5-triazin-2-yl]amino]-5-methoxy-2-methylphenyl]azo]-5-[[2-(sulfooxy)ethyl]sulfonyl]-, dipotassium salt (9CI) (CA INDEX NAME)



●2 K

RN 176449-48-2 HCAPLUS

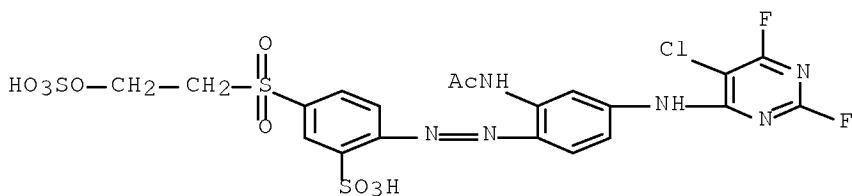
CN Benzenesulfonic acid, 2-[[2-(acetylamino)-4-[[4-fluoro-6-(4-morpholinyl)-1,3,5-triazin-2-yl]amino]-5-methoxyphenyl]azo]-5-[[2-(sulfooxy)ethyl]sulfonyl]-, dipotassium salt (9CI) (CA INDEX NAME)



●2 K

RN 177347-90-9 HCAPLUS

CN Benzenesulfonic acid, 2-[[2-(acetylamino)-4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]phenyl]diazenyl]-5-[[2-(sulfooxy)ethyl]sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



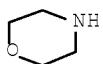
●2 Na

IT 110-91-8, Morpholine, reactions 675-14-9, Cyanuric fluoride 697-83-6, 5-Chloro-2,4,6-trifluoropyrimidine

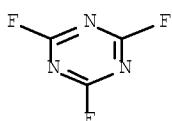
11/628659

3029-64-9, 2,4,6-Trichloro-5-cyanopyrimidine 93696-22-1,
2,4-Difluoro-6-morpholino-1,3,5-triazine
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of bifunctionally reactive monoazo dyes for
cotton and leather)

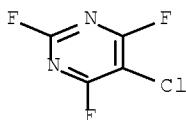
RN 110-91-8 HCAPLUS
CN Morpholine (CA INDEX NAME)



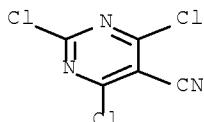
RN 675-14-9 HCAPLUS
CN 1,3,5-Triazine, 2,4,6-trifluoro- (CA INDEX NAME)



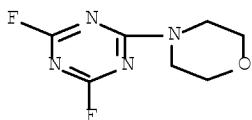
RN 697-83-6 HCAPLUS
CN Pyrimidine, 5-chloro-2,4,6-trifluoro- (CA INDEX NAME)



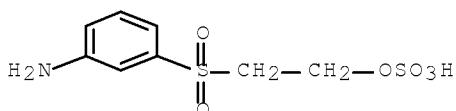
RN 3029-64-9 HCAPLUS
CN 5-Pyrimidinecarbonitrile, 2,4,6-trichloro- (CA INDEX NAME)



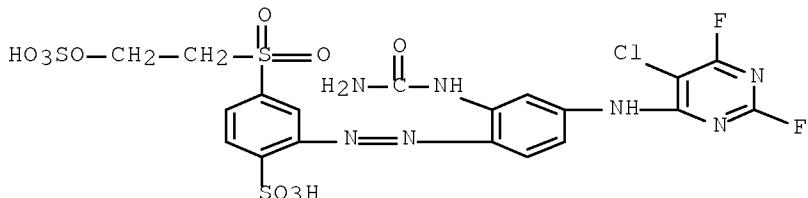
RN 93696-22-1 HCAPLUS
CN 1,3,5-Triazine, 2,4-difluoro-6-(4-morpholinyl)- (CA INDEX NAME)



IT 2494-88-4, 3-Aminophenyl β -sulfatoethyl sulfone
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (sulfonation of)
 RN 2494-88-4 HCAPLUS
 CN Ethanol, 2-[(3-aminophenyl)sulfonyl]-, 1-(hydrogen sulfate) (CA INDEX NAME)



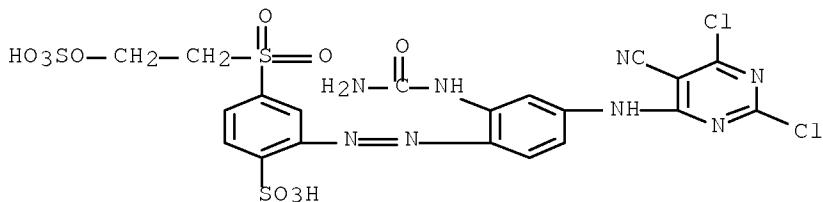
IT 176449-18-6P
 RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
 (yellow; preparation of bifunctionally reactive monoazo dyes for cotton and leather)
 RN 176449-18-6 HCAPLUS
 CN Benzenesulfonic acid, 2-[2-[2-[(aminocarbonyl)amino]-4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]phenyl]diazenyl]-4-[[2-(sulfooxy)ethyl]sulfonyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

IT 176449-33-5P 176449-39-1P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (yellow; preparation of bifunctionally reactive monoazo dyes for cotton and leather)
 RN 176449-33-5 HCAPLUS
 CN Benzenesulfonic acid, 2-[2-[2-[(aminocarbonyl)amino]-4-[(2,6-dichloro-5-cyano-4-pyrimidinyl)amino]phenyl]diazenyl]-4-[[2-(sulfooxy)ethyl]sulfonyl]-

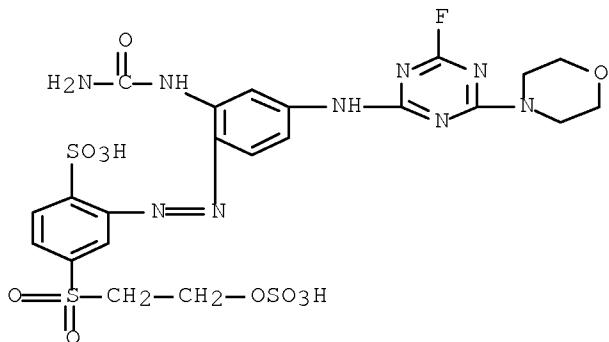
, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 176449-39-1 HCPLUS

CN Benzenesulfonic acid, 2-[[2-[(aminocarbonyl)amino]-4-[[4-fluoro-6-(4-morpholinyl)-1,3,5-triazin-2-yl]amino]phenyl]azo]-4-[[2-(sulfoxy)ethyl]sulfonyl]-, dipotassium salt (9CI) (CA INDEX NAME)



●2 K

IC ICM C09B062-028

ICS C09B062-245; C09B062-085; C09B062-51

ICA C09B067-22

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 40, 45

ST reactive azo dye cotton textile;
leather reactive azo dye;
sulfatoethyl sulfone reactive azo dye;
halopyrimidine reactive azo dyeIT Leather
(dyeing or printing of cotton or leather with
bifunctionally reactive monoazo dyes)IT Dyeing
Textile printing
(of cotton or leather with bifunctionally reactive
monoazo dyes)

IT Dyes, reactive
 (azo, bifunctional; reactive monoazo dyes
 and their preparation and use)

IT 25711-72-2, (m-Aminophenyl)urea
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling component; preparation of bifunctionally reactive
 monoazo dyes for cotton and leather)

IT 41261-80-7P, 2-Amino-4-(β -
 sulfatoethylsulfonyl)benzenesulfonic acid 174491-68-0P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (intermediate; preparation of bifunctionally reactive monoazo
 dyes for cotton and leather)

IT 176449-19-7P 176449-20-0P 176449-21-1P
 176449-22-2P 176449-23-3P 176449-24-4P
 176449-25-5P 176449-26-6P 176449-27-7P
 176449-28-8P 176449-29-9P 176449-30-2P
 176449-31-3P 176449-32-4P 176449-34-6P
 176449-35-7P 176449-36-8P 176449-37-9P
 176449-38-0P 176449-40-4P 176449-41-5P
 176449-42-6P 176449-43-7P 176449-44-8P
 176449-45-9P 176449-46-0P 176449-47-1P
 176449-48-2P 177347-90-9P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (preparation of bifunctionally reactive monoazo dyes for
 cotton and leather)

IT 110-91-8, Morpholine, reactions 675-14-9, Cyanuric
 fluoride 697-83-6, 5-Chloro-2,4,6-trifluoropyrimidine
 3029-64-9, 2,4,6-Trichloro-5-cyanopyrimidine 93696-22-1,
 2,4-Difluoro-6-morpholino-1,3,5-triazine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (preparation of bifunctionally reactive monoazo dyes for
 cotton and leather)

IT 2494-88-4, 3-Aminophenyl β -sulfatoethyl sulfone
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (sulfonation of)

IT 176449-18-6P
 RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical
 process); TEM (Technical or engineered material use); PREP (Preparation);
 PROC (Process); USES (Uses)
 (yellow; preparation of bifunctionally reactive monoazo
 dyes for cotton and leather)

IT 176449-33-5P 176449-39-1P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (yellow; preparation of bifunctionally reactive monoazo
 dyes for cotton and leather)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L31 ANSWER 17 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1996:167610 HCPLUS Full-text
 DOCUMENT NUMBER: 124:204933
 ORIGINAL REFERENCE NO.: 124:37849a,37852a
 TITLE: Reactive monoazo dyes, their
 preparation and their use
 INVENTOR(S): Lehr, Friedrich
 PATENT ASSIGNEE(S): Sandoz-Patent-GmbH, Germany
 SOURCE: Ger. Offen., 7 pp.

CODEN: GWXXBX

DOCUMENT TYPE:

Patent

LANGUAGE:

German

FAMILY ACC. NUM. COUNT:

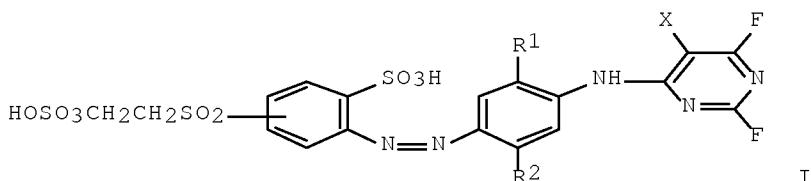
2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4425222	A1	19960118	DE 1994-4425222	19940716 <--
WO 9602593	A1	19960201	WO 1995-EP2779	19950714 <--
W: BR, CN, JP, KR, MX, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
ZA 9505893	A	19970114	ZA 1995-5893	19950714 <--
EP 772652	A1	19970514	EP 1995-926893	19950714 <--
EP 772652	B1	20010829		
R: CH, DE, ES, FR, GB, IT, LI, PT				
CN 1152930	A	19970625	CN 1995-194146	19950714 <--
CN 1090655	C	20020911		
BR 9508283	A	19971223	BR 1995-8283	19950714 <--
JP 10504330	T	19980428	JP 1996-504698	19950714 <--
JP 3829992	B2	20061004		
ES 2162931	T3	20020116	ES 1995-926893	19950714 <--
PT 772652	T	20020228	PT 1995-926893	19950714 <--
US 5747657	A	19980505	US 1997-765786	19970114 <--
PRIORITY APPLN. INFO.:			DE 1994-4425222	A 19940716 <--
			DE 1994-4435380	A 19941004 <--
			WO 1995-EP2779	W 19950714 <--

OTHER SOURCE(S): CASREACT 124:204933; MARPAT 124:204933

GI



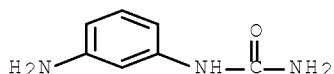
AB The dyes (I; R1 = H, Me, OMe; R2 = H, Me, AcNH, ureido; X = H, Cl) are obtained from 5-chloro-2,4,6-trifluoropyrimidine (II) or tetrafluoropyrimidine and the requisite aminophenylazobenzenesulfonic acid derivative I show good fastness when used to dye or print leather or cellulosics. Thus, 3-(β -sulfatoethylsulfonyl)aniline was sulfated and the product was diazotized and coupled with II to provide a dye (λ_{max} 378 nm) which conferred fast golden yellow shades on cotton.

IT 25711-72-2, m-Aminophenylurea

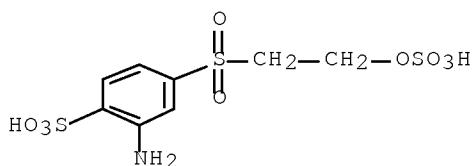
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling component; reactive monoazo dyes for cellulosics and leather)

RN 25711-72-2 HCPLUS

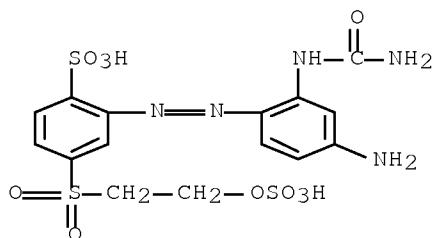
CN Urea, N-(3-aminophenyl)- (CA INDEX NAME)



IT 41261-80-7P, 2-Amino-4-(2-sulfatoethylsulfonyl)benzenesulfonic acid
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate, diazo component; reactive monoazo dyes for cellulosics and leather)
 RN 41261-80-7 HCPLUS
 CN Benzenesulfonic acid, 2-amino-4-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)



IT 174491-68-0P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (intermediate; reactive monoazo dyes for cellulosics and leather)
 RN 174491-68-0 HCPLUS
 CN Benzenesulfonic acid, 2-[2-[4-amino-2-[(aminocarbonyl)amino]phenyl]diazenyl]-4-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)



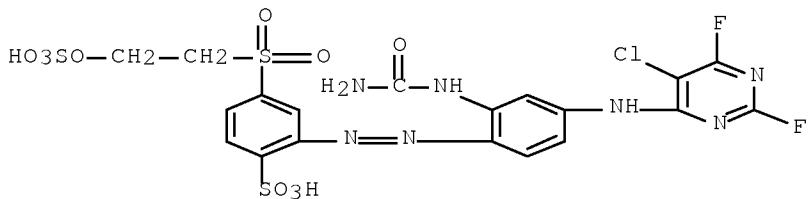
IT 174491-52-2P 174491-53-3P 174491-54-4P
 174491-55-5P 174491-56-6P 174491-57-7P
 174491-58-8P 174491-59-9P 174491-60-2P
 174491-61-3P 174491-62-4P 174491-63-5P
 174491-64-6P 174491-65-7P 174491-66-8P
 174491-67-9P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

11/628659

(reactive monoazo dyes for cellulosics and leather)

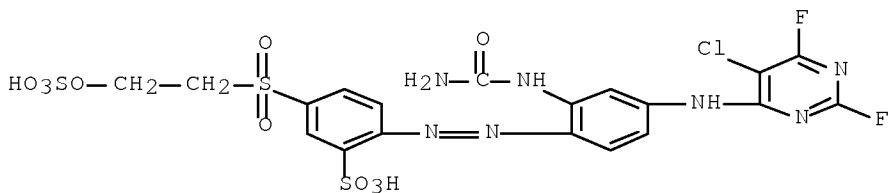
RN 174491-52-2 HCPLUS

CN Benzenesulfonic acid, 2-[2-[2-[(aminocarbonyl)amino]-4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]phenyl]diazenyl]-4-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)



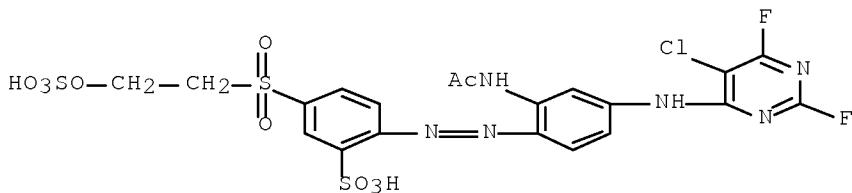
RN 174491-53-3 HCPLUS

CN Benzenesulfonic acid, 2-[2-[2-[(aminocarbonyl)amino]-4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]phenyl]diazenyl]-5-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)



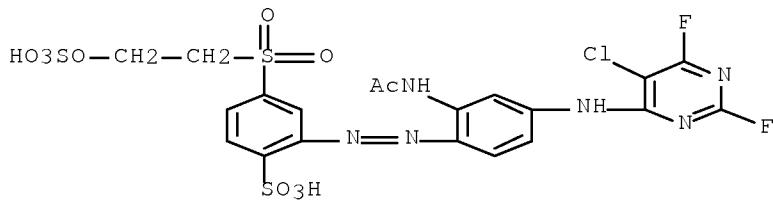
RN 174491-54-4 HCPLUS

CN Benzenesulfonic acid, 2-[2-[2-(acetylamino)-4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]phenyl]diazenyl]-5-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)



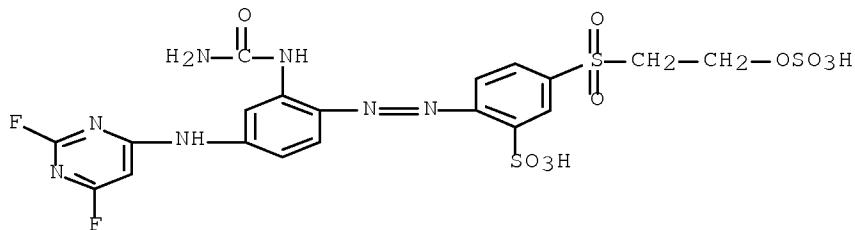
RN 174491-55-5 HCPLUS

CN Benzenesulfonic acid, 2-[2-[2-(acetylamino)-4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]phenyl]diazenyl]-4-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)



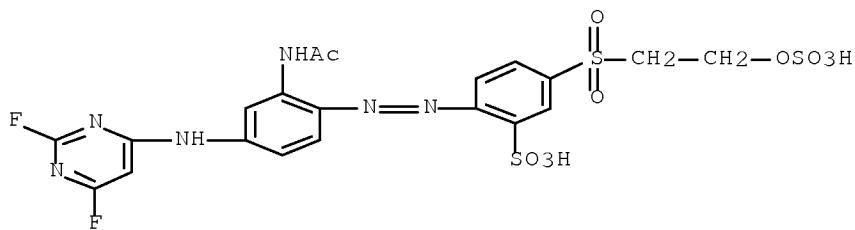
RN 174491-56-6 HCPLUS

CN Benzenesulfonic acid, 2-[2-[2-[(aminocarbonyl)amino]-4-[(2,6-difluoro-4-pyrimidinyl)amino]phenyl]diazenyl]-5-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)



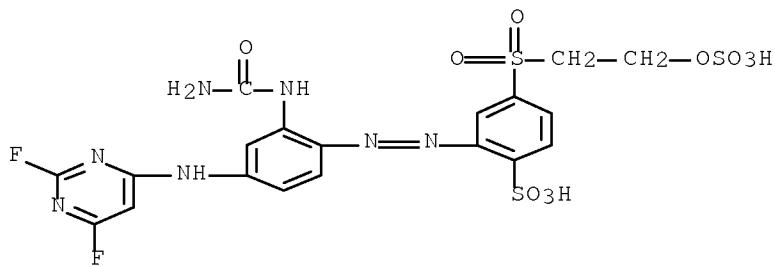
RN 174491-57-7 HCPLUS

CN Benzenesulfonic acid, 2-[2-[2-[(acetylamino)-4-[(2,6-difluoro-4-pyrimidinyl)amino]phenyl]diazenyl]-5-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)



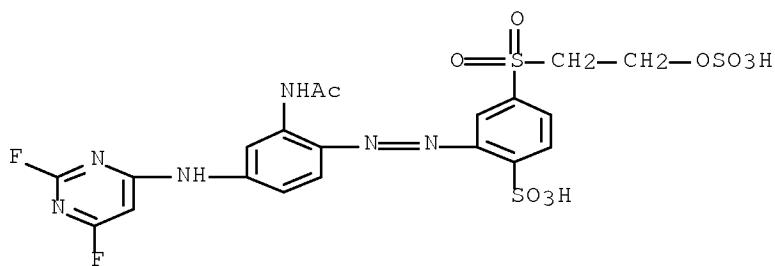
RN 174491-58-8 HCPLUS

CN Benzenesulfonic acid, 2-[2-[2-[(aminocarbonyl)amino]-4-[(2,6-difluoro-4-pyrimidinyl)amino]phenyl]diazenyl]-4-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)



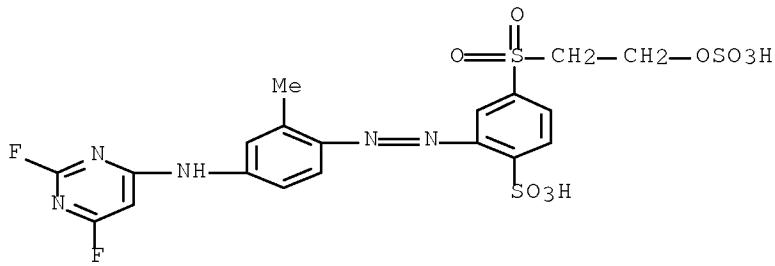
RN 174491-59-9 HCPLUS

CN Benzenesulfonic acid, 2-[2-[2-(acetylamino)-4-[(2,6-difluoro-4-pyrimidinyl)amino]phenyl]diazenyl]-4-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)



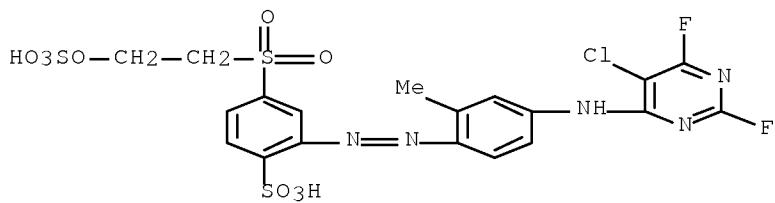
RN 174491-60-2 HCPLUS

CN Benzenesulfonic acid, 2-[2-[4-[(2,6-difluoro-4-pyrimidinyl)amino]-2-methylphenyl]diazenyl]-4-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)



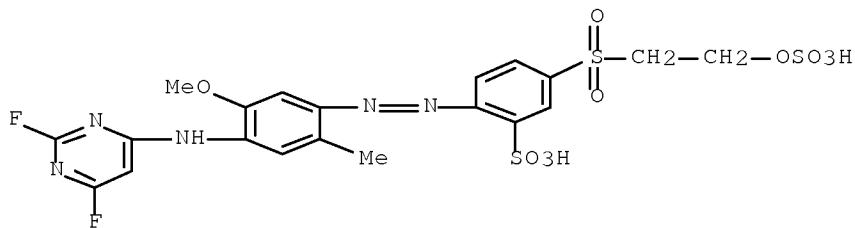
RN 174491-61-3 HCPLUS

CN Benzenesulfonic acid, 2-[2-[4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]-2-methylphenyl]diazenyl]-4-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)



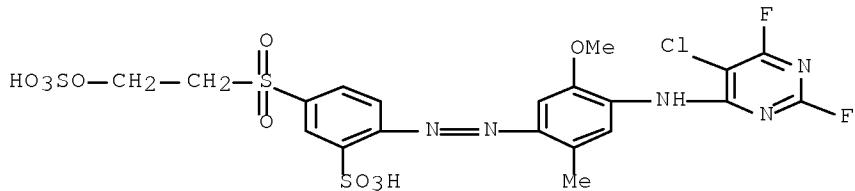
RN 174491-62-4 HCPLUS

CN Benzenesulfonic acid, 2-[2-[4-[(2,6-difluoro-4-pyrimidinyl)amino]-5-methoxy-2-methylphenyl]diazenyl]-5-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)



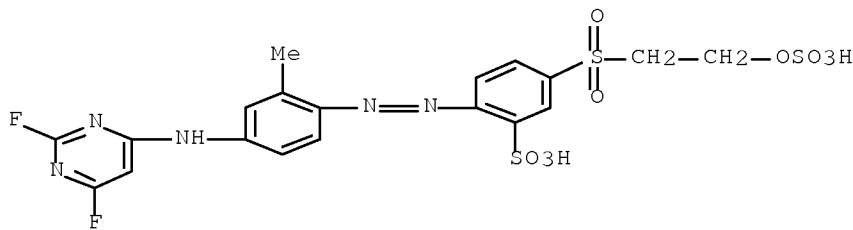
RN 174491-63-5 HCPLUS

CN Benzenesulfonic acid, 2-[2-[4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]-5-methoxy-2-methylphenyl]diazenyl]-5-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)



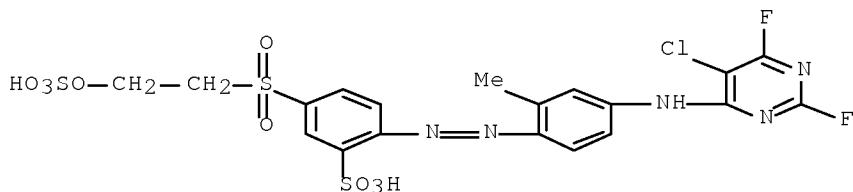
RN 174491-64-6 HCPLUS

CN Benzenesulfonic acid, 2-[2-[4-[(2,6-difluoro-4-pyrimidinyl)amino]-2-methylphenyl]diazenyl]-5-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)



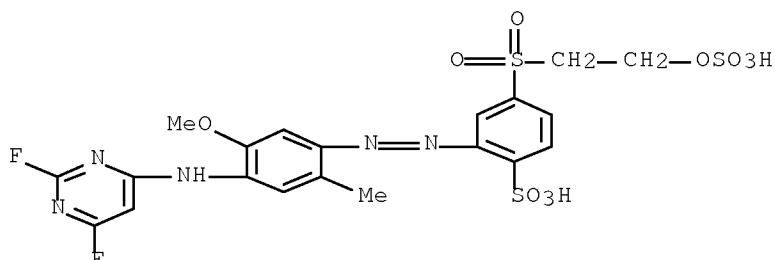
RN 174491-65-7 HCPLUS

CN Benzenesulfonic acid, 2-[2-[4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]-2-methylphenyl]diazenyl]-5-[[2-(sulfoxyethyl)sulfonyl]- (CA INDEX NAME)



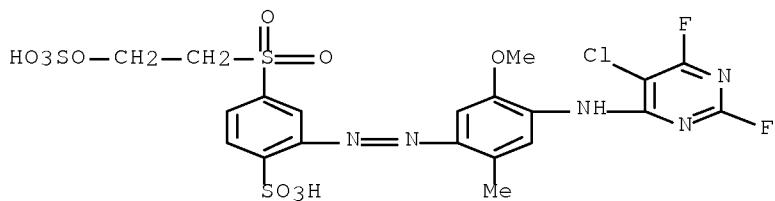
RN 174491-66-8 HCPLUS

CN Benzenesulfonic acid, 2-[2-[4-[(2,6-difluoro-4-pyrimidinyl)amino]-5-methoxy-2-methylphenyl]diazenyl]-4-[[2-(sulfoxyethyl)sulfonyl]- (CA INDEX NAME)



RN 174491-67-9 HCPLUS

CN Benzenesulfonic acid, 2-[2-[4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]-5-methoxy-2-methylphenyl]diazenyl]-4-[[2-(sulfoxyethyl)sulfonyl]- (CA INDEX NAME)



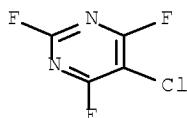
IT 697-83-6, 5-Chloro-2,4,6-trifluoropyrimidine 767-79-3,
Tetrafluoropyrimidine 2494-88-4,

3-(β -Sulfatoethylsulfonyl)aniline

RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; reactive monoazo dyes for
cellulosics and leather)

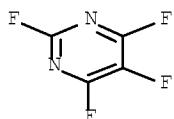
RN 697-83-6 HCAPLUS

CN Pyrimidine, 5-chloro-2,4,6-trifluoro- (CA INDEX NAME)



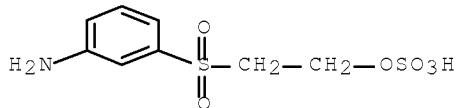
RN 767-79-3 HCAPLUS

CN Pyrimidine, 2,4,5,6-tetrafluoro- (CA INDEX NAME)



RN 2494-88-4 HCAPLUS

CN Ethanol, 2-[(3-aminophenyl)sulfonyl]-, 1-(hydrogen sulfate) (CA INDEX NAME)



IC ICM C09B062-008

ICS C09B067-22; C09B043-136; D06P001-38; D06P003-10; D06P003-66;
D06P003-32; C07C317-32; C07D239-42

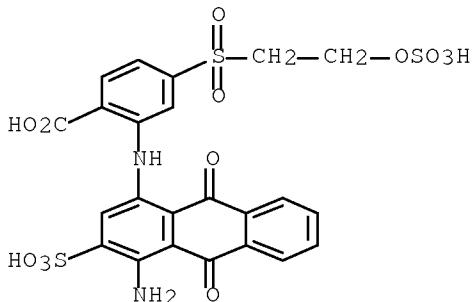
ICA C09B062-51; C09B062-245; C09B029-085; D06P003-14; D06P003-24; D06P003-85;

11/628659

CC D06P003-87; C09D011-02; C07C317-34; C07C245-08; C07C309-46
41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
Sensitizers)
Section cross-reference(s): 40, 45
ST reactive azo dye prepn; cellulosic
leather dyeing reactive azo
IT Leather
(preparation of reactive monoazo dyes for cellulosics
and leather)
IT Dyes, reactive
(azo, preparation of monoazo dyes for cellulosics and
leather)
IT Dyeing
(reactive, of leather and cellulosics with prepared
monoazo dyes)
IT 25711-72-2, m-Aminophenylurea
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling component; reactive monoazo dyes for
cellulosics and leather)
IT 41261-80-7P, 2-Amino-4-(2-sulfatoethylsulfonyl)benzenesulfonic
acid
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate, diazo component; reactive monoazo dyes
for cellulosics and leather)
IT 174491-68-0P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)
(intermediate; reactive monoazo dyes for
cellulosics and leather)
IT 174491-52-2P 174491-53-3P 174491-54-4P
174491-55-5P 174491-56-6P 174491-57-7P
174491-58-8P 174491-59-9P 174491-60-2P
174491-61-3P 174491-62-4P 174491-63-5P
174491-64-6P 174491-65-7P 174491-66-8P
174491-67-9P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)
(reactive monoazo dyes for cellulosics and
leather)
IT 697-83-6, 5-Chloro-2,4,6-trifluoropyrimidine 767-79-3,
Tetrafluoropyrimidine 2494-88-4,
3-(β -Sulfatoethylsulfonyl)aniline
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; reactive monoazo dyes for
cellulosics and leather)

L31 ANSWER 18 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1994:57143 HCPLUS Full-text
DOCUMENT NUMBER: 120:57143
ORIGINAL REFERENCE NO.: 120:10387a,10390a
TITLE: Manufacture of leather from reptile skin
INVENTOR(S): Kitano, Eiichi
PATENT ASSIGNEE(S): Kitano Kagaku Jugen, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05179300	A	19930720	JP 1992-18304	19920106 <--
JP 06055960	B	19940727		
PRIORITY APPLN. INFO.:				
JP 1992-18304 19920106 <--				
AB	Soft and wash-resistant leather from snakes and lizards, useful for sports product, handbags, and garments (no data), are manufactured using a fatliquoring agent comprising long-chain dialkylsulfosuccinate salts, long-chain monoalkyl phosphate ester, maleic anhydride-olefin copolymer, and diethylene glycol monobutyl ether. The method also features a 2-stage dyeing process using vinylsulfone type reactive dyes and then phosphated dyes and a 2-stage bleaching process using Na chlorite and then K permanganate and Na bisulfite.			
IT	20640-71-5			
	RL: USES (Uses) (dyeing with, for reptile leather)			
RN	20640-71-5 HCPLUS			
CN	Benzoic acid, 2-[(4-amino-9,10-dihydro-9,10-dioxo-3-sulfo-1-anthracenyl)amino]-4-[[2-(sulfoxy)ethyl]sulfonyl]- (CA INDEX NAME)			



IC ICM C14C009-00
ICS C14C003-16; D06L003-02; D06L003-08; D06L003-14
CC 45-3 (Industrial Organic Chemicals, Leather, Fats, and Waxes)
ST leather manuf reptile skin; fatliquoring agent reptile
leather manuf; bleaching dyeing reptile leather manuf
IT Dyeing
(in manufacture of soft and wash-resistant reptile leather)
IT Reptile
(leather from, manufacture of, soft and wash-resistant)
IT Leather
(reptile, manufacture of soft and wash-resistant, fatliquoring agents in)
IT Alkenes, polymers
RL: USES (Uses)
(polymers, with maleic anhydride, fatliquoring agent composition, for
reptile leather)
IT Bleaching
(two-stage, in manufacture of soft and wash-resistant reptile
leather)
IT 7631-90-5, Sodium bisulfite 7722-64-7, Potassium permanganate
7758-19-2, Sodium chlorite
RL: USES (Uses)
(bleaching agent, in manufacture of reptile leather)
IT 20640-71-5

RL: USES (Uses)

(dyeing with, for reptile leather)

IT 108-31-6D, Maleic anhydride, alkene copolymer 112-34-5, Diethylene glycol monobutyl ether 5138-18-1D, Sulfosuccinic acid, C12-18 esters, sodium salts 7664-38-2D, Phosphoric acid, monoalkyl esters

RL: USES (Uses)

(fatliquoring agent composition, for reptile leather)

L31 ANSWER 19 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1993:583219 HCPLUS Full-text

DOCUMENT NUMBER: 119:183219

ORIGINAL REFERENCE NO.: 119:32727a,32730a

TITLE: Characterizations of black dyes and their color fastness on leather

AUTHOR(S): Nakamura, Masashi

CORPORATE SOURCE: Leather Lab., Osaka Prefect. Ind. Technol. Res. Inst.,
Suita, 564, JapanSOURCE: Hikaku Kagaku (Chemistry) (1991), 37(2),
89-102

CODEN: HIKAAF; ISSN: 0018-1811

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB Com. black dyes were classified into 6 groups according to the Rf of the main spots on paper- and thin-layer chromatog. to establish a guide for selecting dyes to give good color fastness on leather. The relation was examined between Rf and dye properties (visible region absorption spectra) and dyeing properties on chrome leather (dye exhaustion, penetration, color strength of grain surface, fastness to light, rubbing, alkaline perspiration, and wet- or dry-cleaning). Color fastness increased with decreasing Rf, and the dyes with lowest Rf and with relatively stronger hydrophobicity and larger mol. weight showed the best color fastness.

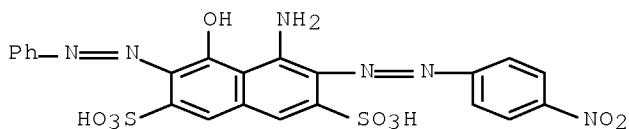
IT 1064-48-8, C.I. Acid Black 1 1787-61-7, C.I. Mordant Black 11 1937-37-7 2052-25-7 2538-85-4, C.I. Mordant Black 17 2945-96-2, C.I. Direct Black 17 3071-73-6, C.I. Acid Black 24 3564-14-5, C.I. Mordant Black 3 3618-58-4, C.I. Mordant Black 1 3618-60-8, C.I. Mordant Black 7 5979-27-1, C.I. Mordant Black 51 6262-07-3, C.I. Acid Black 26 6358-80-1, C.I. Acid Black 94 6409-86-5, C.I. Direct Black 97 6428-31-5, C.I. Direct Black 19 6428-38-2, C.I. Direct Black 32 6473-13-8, C.I. Direct Black 22 16894-32-9, C.I. Direct Black 122 17095-24-8, C.I. Reactive Black 5 32517-36-5, C.I. Acid Black 63 54804-85-2, C.I. Direct Black 154 57693-14-8, C.I. Acid Black 172

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(color fastness of, for dyeing of leather)

RN 1064-48-8 HCPLUS

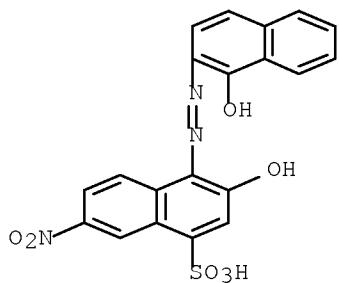
CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[2-(4-nitrophenyl)diazenyl]-6-(2-phenyldiazenyl)-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 1787-61-7 HCPLUS

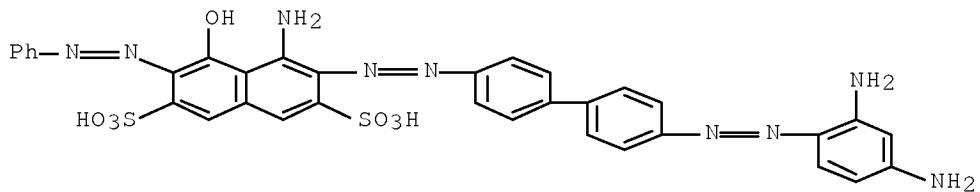
CN 1-Naphthalenesulfonic acid, 3-hydroxy-4-[2-(1-hydroxy-2-naphthalenyl)diazenyl]-7-nitro-, sodium salt (1:1) (CA INDEX NAME)



● Na

RN 1937-37-7 HCPLUS

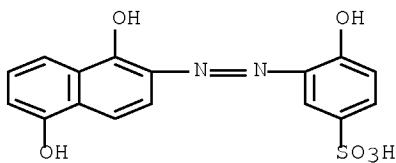
CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[2-[4'-(2,4-diaminophenyl)diazenyl][1,1'-biphenyl]-4-yl]diazenyl]-5-hydroxy-6-(2-phenyldiazenyl)-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

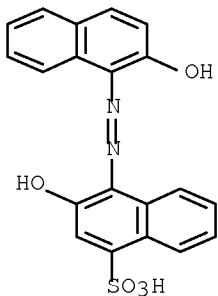
RN 2052-25-7 HCPLUS

CN Benzenesulfonic acid, 3-[2-(1,5-dihydroxy-2-naphthalenyl)diazenyl]-4-hydroxy-, sodium salt (1:1) (CA INDEX NAME)



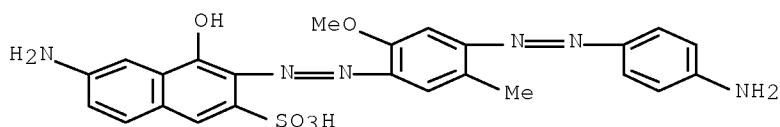
● Na

RN 2538-85-4 HCAPLUS
 CN 1-Naphthalenesulfonic acid, 3-hydroxy-4-[2-(2-hydroxy-1-naphthalenyl)diazenyl]-, sodium salt (1:1) (CA INDEX NAME)



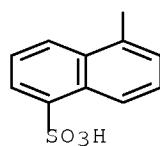
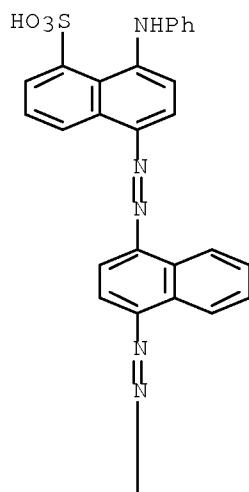
● Na

RN 2945-96-2 HCAPLUS
 CN 2-Naphthalenesulfonic acid, 6-amino-3-[2-[4-[2-(4-aminophenyl)diazenyl]-2-methoxy-5-methylphenyl]diazenyl]-4-hydroxy-, sodium salt (1:1) (CA INDEX NAME)



● Na

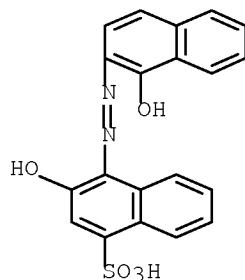
RN 3071-73-6 HCAPLUS
 CN 1-Naphthalenesulfonic acid, 8-(phenylamino)-5-[2-[4-[2-(5-sulfo-1-naphthalenyl)diazenyl]-1-naphthalenyl]diazenyl]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 3564-14-5 HCPLUS

CN 1-Naphthalenesulfonic acid, 3-hydroxy-4-[2-(1-hydroxy-2-naphthalenyl)diazenyl]-, sodium salt (1:1) (CA INDEX NAME)

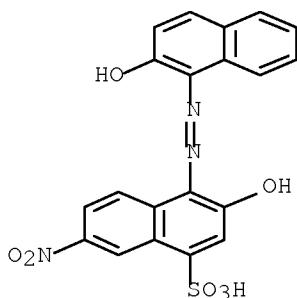


● Na

RN 3618-58-4 HCPLUS

11/628659

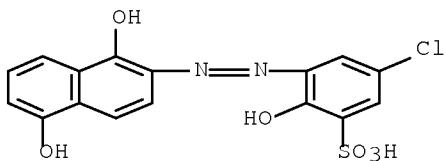
CN 1-Naphthalenesulfonic acid, 3-hydroxy-4-[2-(2-hydroxy-1-naphthalenyl)diazenyl]-7-nitro-, sodium salt (1:1) (CA INDEX NAME)



● Na

RN 3618-60-8 HCPLUS

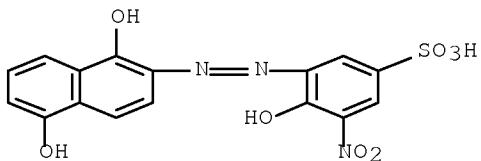
CN Benzenesulfonic acid, 5-chloro-3-[2-(1,5-dihydroxy-2-naphthalenyl)diazenyl]-2-hydroxy-, sodium salt (1:1) (CA INDEX NAME)



● Na

RN 5979-27-1 HCPLUS

CN Benzenesulfonic acid, 3-[2-(1,5-dihydroxy-2-naphthalenyl)diazenyl]-4-hydroxy-5-nitro-, sodium salt (1:1) (CA INDEX NAME)



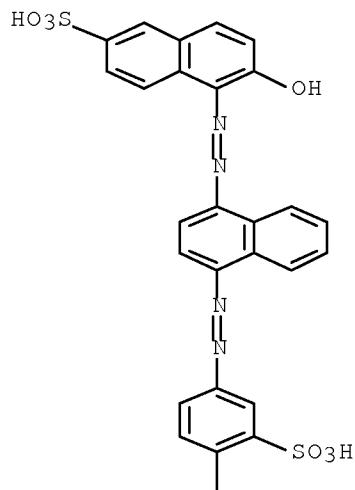
● Na

RN 6262-07-3 HCPLUS

CN 2-Naphthalenesulfonic acid, 6-hydroxy-5-[2-[4-[2-[4-(phenylamino)-3-sulfophenyl]diazenyl]-1-naphthalenyl]diazenyl]-, sodium salt (1:2) (CA INDEX NAME)

INDEX NAME)

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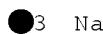
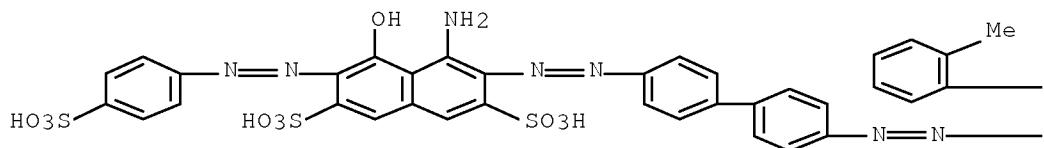
PAGE 2-A

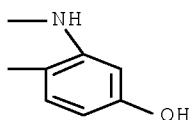


RN 6358-80-1 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3-[2-[4'-(2-methylphenyl)amino]phenyl]diazenyl][1,1'-biphenyl]-4-yl]diazenyl]-6-[2-(4-sulfophenyl)diazenyl]-, sodium salt (1:3) (CA INDEX NAME)

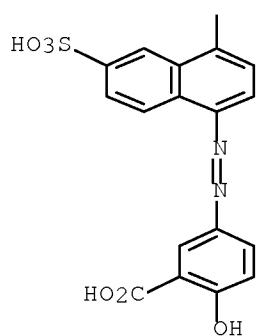
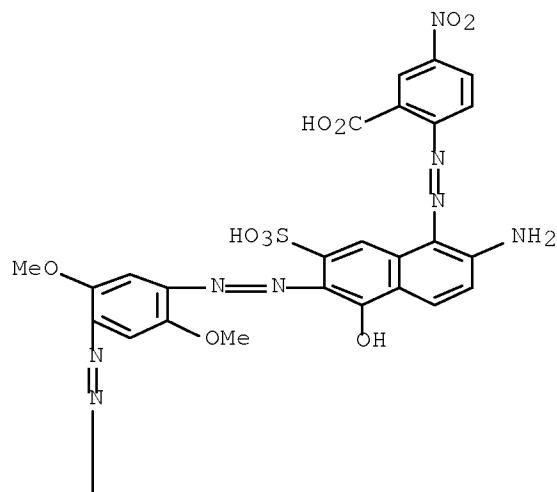
PAGE 1-A





RN 6409-86-5 HCPLUS

CN Benzoic acid, 2-[(2-amino-6-[[4-[[4-[(3-carboxy-4-hydroxyphenyl)azo]-7-sulfo-1-naphthalenyl]azo]-2,5-dimethoxyphenyl]azo]-5-hydroxy-7-sulfo-1-naphthalenyl]azo]-5-nitro-, tetrasodium salt (9CI) (CA INDEX NAME)

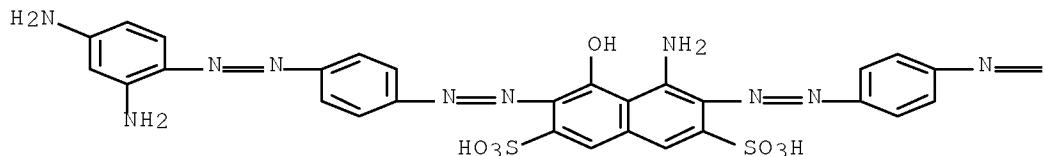


●4 Na

RN 6428-31-5 HCPLUS

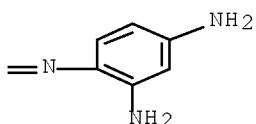
CN 2,7-Naphthalenedisulfonic acid, 4-amino-3,6-bis[2-[4-[2-(2,4-diaminophenyl)diazenyl]phenyl]diazenyl]-5-hydroxy-, sodium salt (1:2) (CA INDEX NAME)

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●2 Na

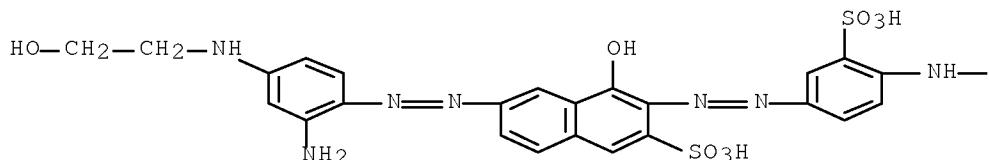
PAGE 1-B



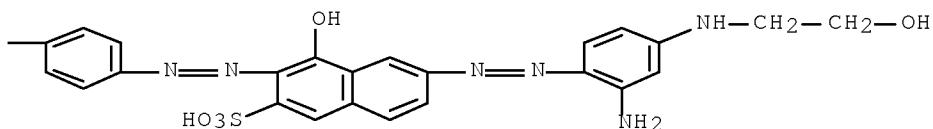
RN 6428-38-2 HCPLUS

CN 2-Naphthalenesulfonic acid, 6-[2-[2-amino-4-[(2-hydroxyethyl)amino]phenyl]diazenyl]-3-[2-[4-[(4-[2-[7-[2-[2-amino-4-[(2-hydroxyethyl)amino]phenyl]diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]phenyl]amino]-3-sulfophenyl]diazenyl]-4-hydroxy-, sodium salt (1:3) (CA INDEX NAME)

PAGE 1-A

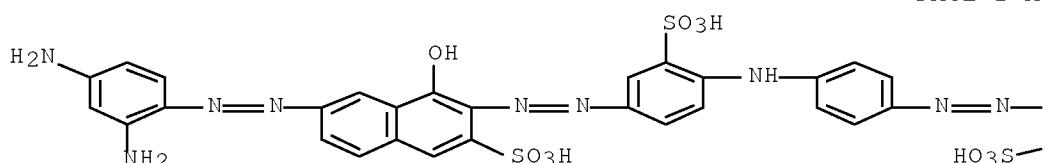


●3 Na

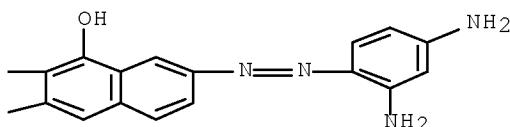


RN 6473-13-8 HCAPLUS

CN 2-Naphthalenesulfonic acid, 6-[2-(2,4-diaminophenyl)diazenyl]-3-[2-[4-[2-[7-[2-(2,4-diaminophenyl)diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]phenyl]amino]-3-sulfophenyl]diazenyl]-4-hydroxy-, sodium salt (1:3) (CA INDEX NAME)

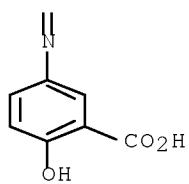
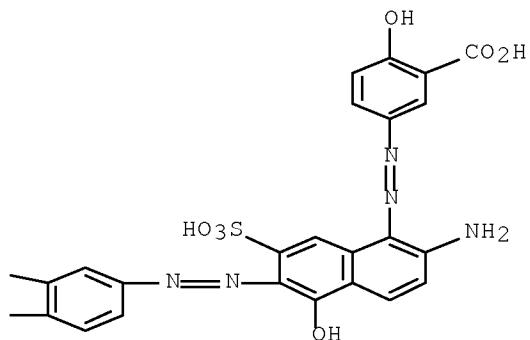
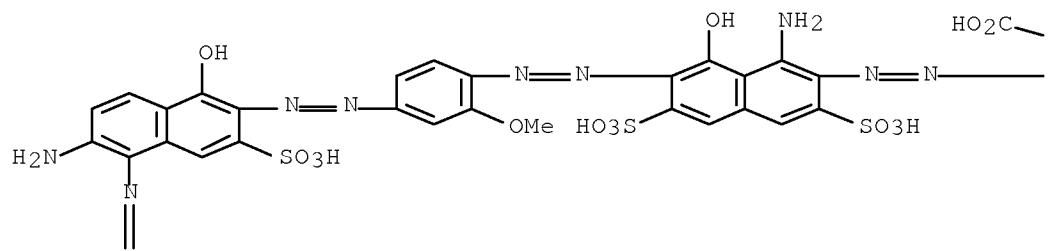


●3 Na



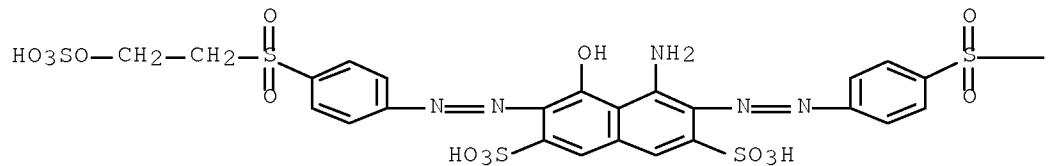
RN 16894-32-9 HCAPLUS

CN Benzoic acid, 2-[2-[1-amino-7-[2-[4-[2-[6-amino-5-[2-(3-carboxy-4-hydroxyphenyl)diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]-2-methoxyphenyl]diazenyl]-8-hydroxy-3,6-disulfo-2-naphthalenyl]diazenyl]-5-[2-[6-amino-5-[2-(3-carboxy-4-hydroxyphenyl)diazenyl]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]- (CA INDEX NAME)



RN 17095-24-8 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[2-[4-[2-
 (sulfooxy)ethyl]sulfonyl]phenyl]diazenyl-, sodium salt (1:4) (CA INDEX
 NAME)

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●4 Na

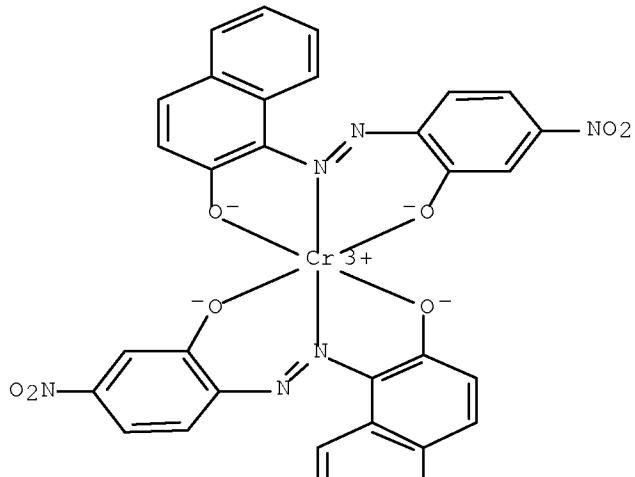
PAGE 1-B

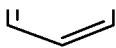
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RN 32517-36-5 HCAPLUS

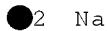
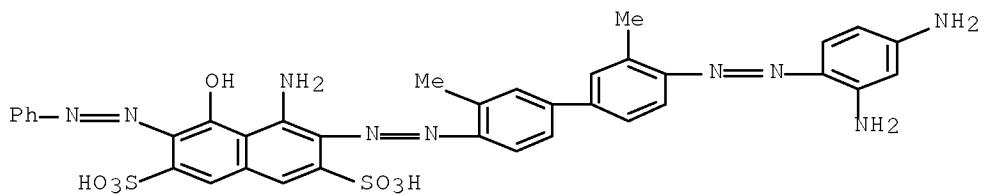
CN Chromate(1-), bis[1-[2-(hydroxy- κ O)-4-nitrophenyl]diazenyl-2-naphthalenolato(2-)- κ O]-, hydrogen (1:1), (OC-6-22')- (CA INDEX NAME)

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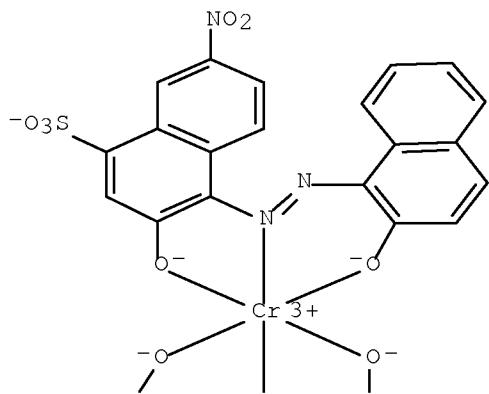


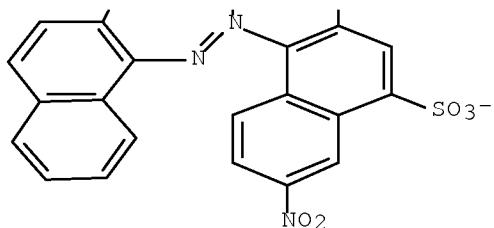


RN 54804-85-2 HCPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-3-[2-[4'-[2-(2,4-diaminophenyl)diazaryl]-3,3'-dimethyl[1,1'-biphenyl]-4-yl]diazaryl]-5-hydroxy-6-(2-phenyldiazaryl)-, sodium salt (1:2) (CA INDEX NAME)



RN 57693-14-8 HCPLUS
 CN Chromate(3-), bis[3-(hydroxy- κ O)-4-[2-[2-(hydroxy- κ O)-1-naphthalenyl]diazyl- κ N1]-7-nitro-1-naphthalenesulfonato(3-)]-, sodium (1:3) (CA INDEX NAME)





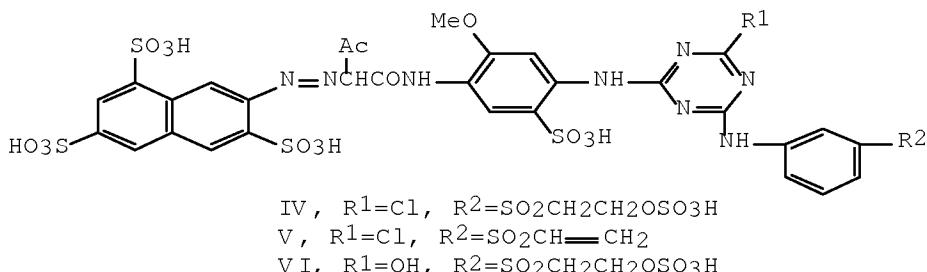
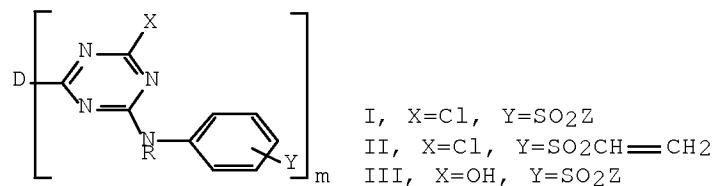
●3 Na⁺

CC 45-2 (Industrial Organic Chemicals, Leather, Fats, and Waxes)
 Section cross-reference(s): 41
 ST azo dye leather dyeing; color
 fastness black dye leather
 IT Leather
 (azo dyes for, color fastness of)
 IT Dyes, azo
 (color fastness of, for dyeing of leather)
 IT Dyeing
 (of leather, with azo dyes)
 IT Molecular structure-property relationship
 (fastness, color fastness, of azo dyes for
 dyeing of leather)
 IT 1064-48-8, C.I. Acid Black 1 1326-83-6, C.I. Solubilized Sulfur
 Black 1 1787-61-7, C.I. Mordant Black 11 1937-37-7
 2052-25-7 2538-85-4, C.I. Mordant Black 17
 2945-96-2, C.I. Direct Black 17 3071-73-6, C.I. Acid
 Black 24 3564-14-5, C.I. Mordant Black 3 3618-58-4,
 C.I. Mordant Black 1 3618-60-8, C.I. Mordant Black 7
 5610-64-0, C.I. Acid Black 52 5979-27-1, C.I. Mordant Black 51
 6262-07-3, C.I. Acid Black 26 6358-80-1, C.I. Acid Black
 94 6409-86-5, C.I. Direct Black 97 6428-31-5, C.I.
 Direct Black 19 6428-38-2, C.I. Direct Black 32
 6473-13-8, C.I. Direct Black 22 8005-03-6, C.I. Acid Black 2
 8005-33-2, C.I. Natural Black 1 12217-14-0, C.I. Acid Black 29
 12217-18-4, C.I. Acid Black 109 12218-96-1, C.I. Acid Black 158
 12218-97-2, C.I. Acid Black 110 12218-98-3, C.I. Acid Black 113
 12219-09-9, C.I. Acid Black 155 12224-60-1, C.I. Mordant Black 84
 12238-86-7, C.I. Acid Black 164 16894-32-9, C.I. Direct Black
 122 17095-24-8, C.I. Reactive Black 5
 32517-36-5, C.I. Acid Black 63 50813-24-6, Aizen Cathilon Black
 SBH 54804-85-2, C.I. Direct Black 154 57693-14-8, C.I.
 Acid Black 172 61723-89-5, C.I. Acid Black 139 61814-62-8, C.I. Acid
 Black 177 61901-10-8, C.I. Acid Black 183 61901-28-8, C.I. Acid Black
 179 61931-02-0, C.I. Acid Black 194 63641-84-9, C.I. Acid Black 190
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 BXH 150428-43-6, Aizen Cathilon Black KBH 150428-44-7, Aizen Cathilon
 Black MH 150428-45-8, Aizen Cathilon Black NH 150428-49-2, Basic Black
 MD 150428-57-2, Corvolin BT 150428-58-3, C.I. Acid Black 189
 150428-59-4, C.I. Mordant Black 54 150428-74-3, Leather Black
 HD

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
 (color fastness of, for dyeing of leather)

L31 ANSWER 20 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1993:474525 HCPLUS Full-text
 DOCUMENT NUMBER: 119:74525
 ORIGINAL REFERENCE NO.: 119:13417a,13420a
 TITLE: Reactive dye compositions and dyeing and printing textiles and leather therewith
 INVENTOR(S): Akahori, Kingo; Kashiwane, Yutaka; Harada, Naoki
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04370157	A	19921222	JP 1991-147261	19910619 <--
PRIORITY APPLN. INFO.:			JP 1991-147261	19910619 <--
OTHER SOURCE(S):	MARPAT	119:74525		
GI				



AB The title compns. showing good buildup, solubility, storability, and fastness properties comprise I and ≥ 1 of II and III in free-acid forms (D = sulfo group-containing azo, metalized azo, anthraquinone, phthalocyanine, formazan, dioxazine dye residue; R = H, Me, Et; Z = vinyl, CH₂CH₂Z₁; Z₁ = alkali-removable group; m = 1, 2; the Y to NR locant relation is similar in I and II) in (II + III):I weight ratio 1-60:100. Cotton was dyed fast yellow with a dye liquor containing IV 100, V 10, and VI 1 parts.

IT 80315-16-8 85946-16-3 85946-20-9

104256-91-9 105936-66-1 105956-68-1
 107143-06-6 109295-78-5 109295-80-9
 115662-23-2 131733-83-0 139261-22-6
 149124-57-2 149124-58-3 149124-59-4
 149124-60-7 149124-61-8 149124-62-9
 149124-63-0 149124-64-1 149124-65-2
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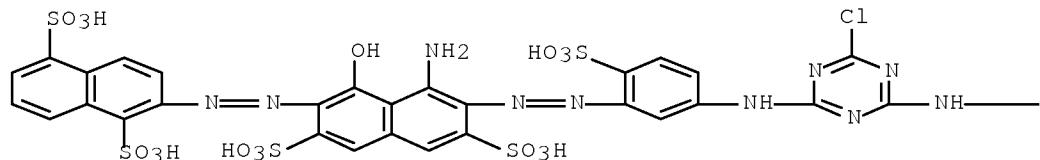
RL: USES (Uses)

(mixed reactive azo dyes containing, for
 cotton and leather)

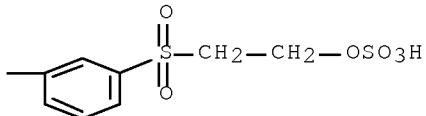
RN 80315-16-8 HCPLUS

CN 1,5-Naphthalenedisulfonic acid, 2-[2-[8-amino-7-[2-[5-[[4-chloro-6-[[3-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]diazenyl]-1-hydroxy-3,6-disulfo-2-naphthalenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A

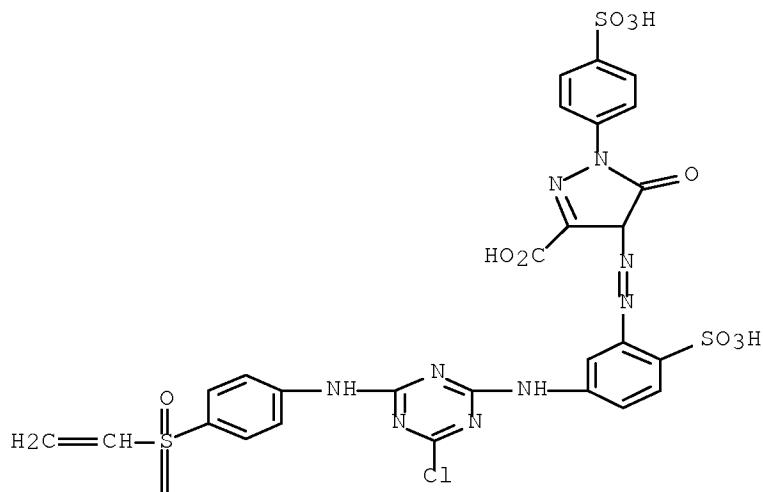


PAGE 1-B



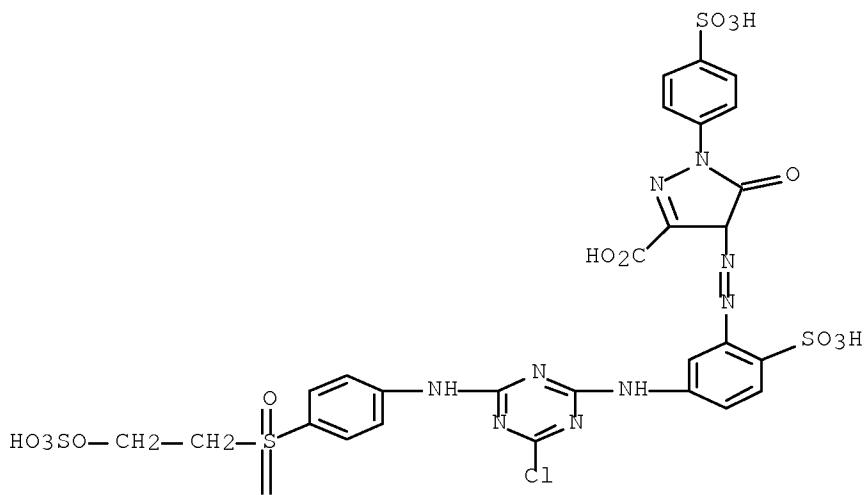
RN 85946-16-3 HCPLUS

CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[5-[[4-chloro-6-[[4-(ethenylsulfonyl)phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)



||

RN 85946-20-9 HCPLUS
 CN 1H-Pyrazole-3-carboxylic acid, 4-[2-[5-[[4-chloro-6-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]diazenyl]-4,5-dihydro-5-oxo-1-(4-sulfophenyl)- (CA INDEX NAME)

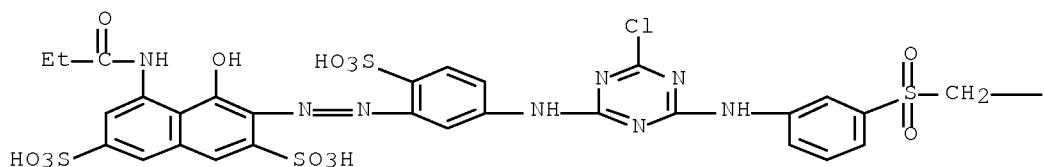


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II

RN 104256-91-9 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 3-[2-[5-[[4-chloro-6-[[3-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]diazenyl]-4-hydroxy-5-[(1-oxopropyl)amino]- (CA INDEX NAME)

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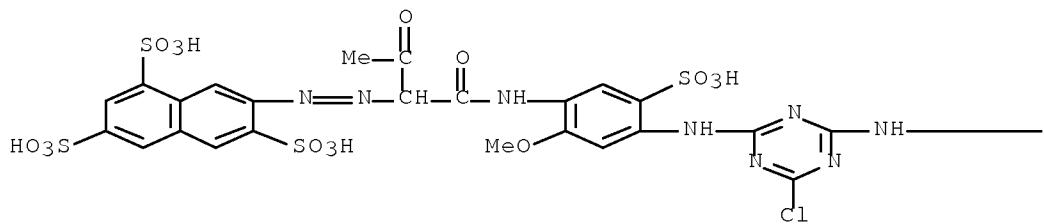


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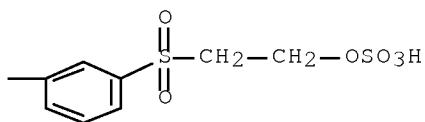
—CH₂—OSO₃H

RN 105936-66-1 HCAPLUS
 CN 1,3,6-Naphthalenetrisulfonic acid,
 7-[2-[1-[[4-[[4-chloro-6-[[3-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-methoxy-5-sulfophenyl]amino]carbonyl]-2-oxopropyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A

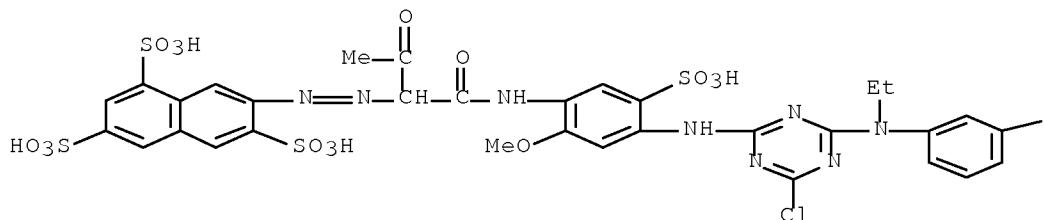


PAGE 1-B

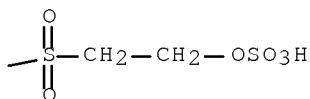


RN 105956-68-1 HCAPLUS
 CN 1,3,6-Naphthalenetrisulfonic acid,
 7-[2-[1-[[4-[[4-chloro-6-[ethyl[3-[[2-
 (sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-methoxy-
 5-sulfophenyl]amino]carbonyl]-2-oxopropyl]diazenyl]- (CA INDEX NAME)

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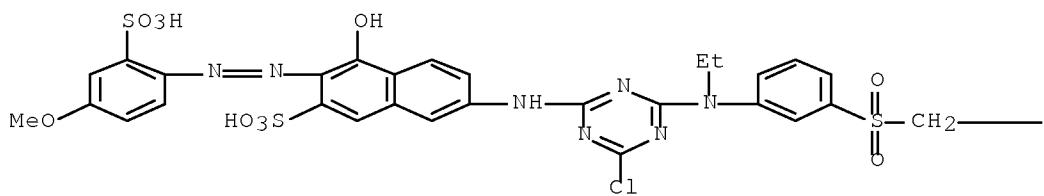


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RN 107143-06-6 HCAPLUS
 CN 2-Naphthalenesulfonic acid, 7-[[4-chloro-6-[ethyl[3-[[2-
 (sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-4-hydroxy-
 3-[2-(4-methoxy-2-sulfophenyl)diazenyl]- (CA INDEX NAME)

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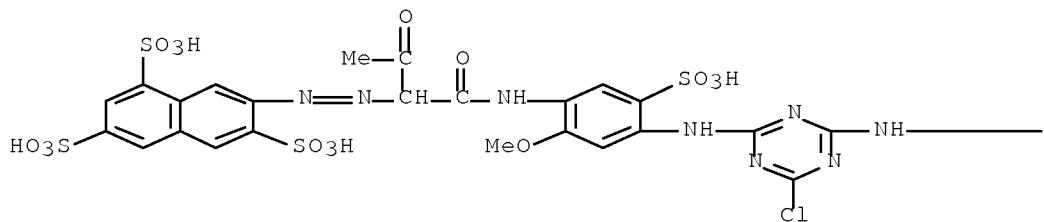


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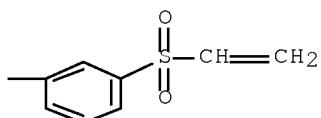
—CH₂—OSO₃H

RN 109295-78-5 HCPLUS
 CN 1,3,6-Naphthalenetrisulfonic acid,
 7-[2-[1-[[4-[[4-chloro-6-[[3-(ethenylsulfonyl)phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-methoxy-5-sulfophenyl]amino]carbonyl]-2-oxopropyl]diazenyl]-
 (CA INDEX NAME)

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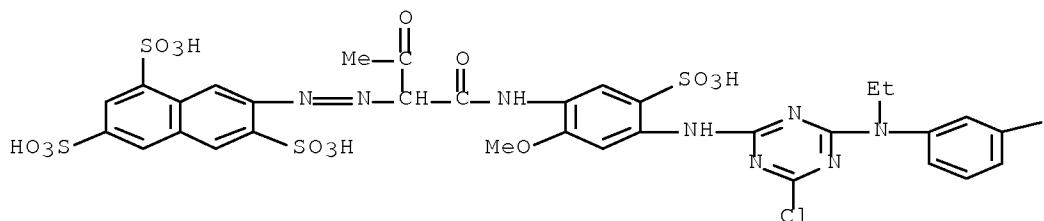


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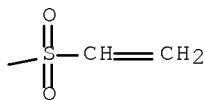


RN 109295-80-9 HCPLUS
 CN 1,3,6-Naphthalenetrisulfonic acid,
 7-[2-[1-[[4-[[4-chloro-6-[[3-(ethenylsulfonyl)phenyl]ethylamino]-1,3,5-triazin-2-yl]amino]-2-methoxy-5-sulfophenyl]amino]carbonyl]-2-oxopropyl]diazenyl]-
 (CA INDEX NAME)

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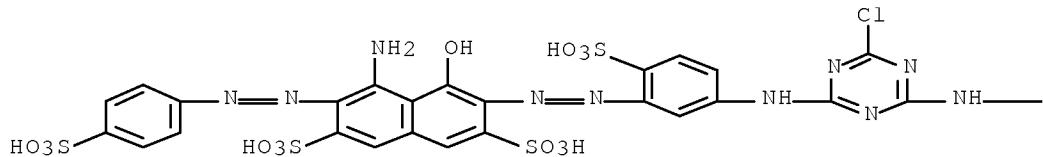


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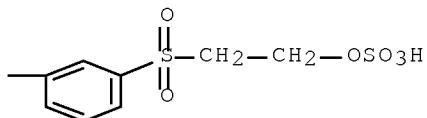


RN 115662-23-2 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[2-[5-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]diazenyl]-5-hydroxy-3-[2-(4-sulfophenyl)diazenyl]- (CA INDEX NAME)

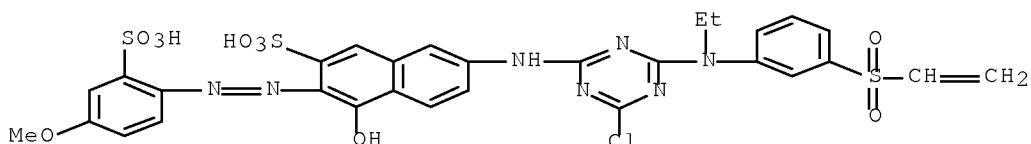
PAGE 1-A



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RN 131733-83-0 HCAPLUS
 CN 2-Naphthalenesulfonic acid, 7-[[4-chloro-6-[[3-(ethenylsulfonyl)phenyl]ethylamino]-1,3,5-triazin-2-yl]amino]-4-hydroxy-3-[2-(4-methoxy-2-sulfophenyl)diazenyl]- (CA INDEX NAME)

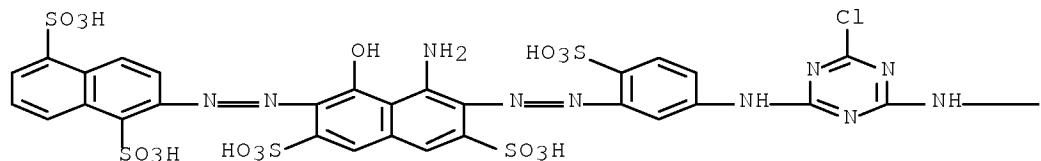


RN 139261-22-6 HCAPLUS
 CN 1,5-Naphthalenedisulfonic acid, 2-[2-[8-amino-7-[2-[5-[[4-chloro-6-[[3-

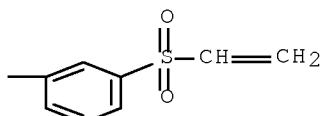
11/628659

(ethenylsulfonyl)phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]diazenyl]-1-hydroxy-3,6-disulfo-2-naphthalenyl]diazenyl]- (CA INDEX NAME)

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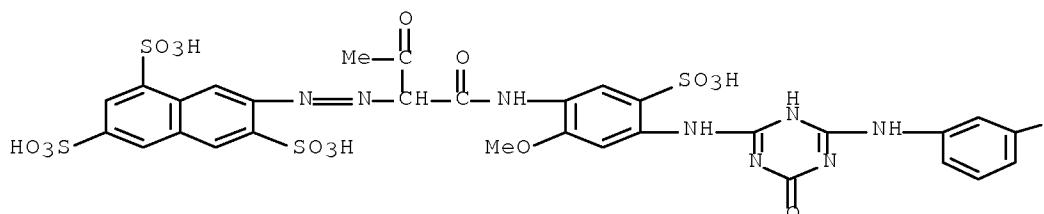
PAGE 1-B



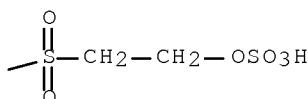
RN 149124-57-2 HCPLUS

CN 1,3,6-Naphthalenetrisulfonic acid,
7-[2-[1-[1-[4-[3,4-dihydro-4-oxo-6-[[3-[2-
(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-methoxy-
5-sulfophenyl]amino]carbonyl]-2-oxopropyl]diazenyl]- (CA INDEX NAME)

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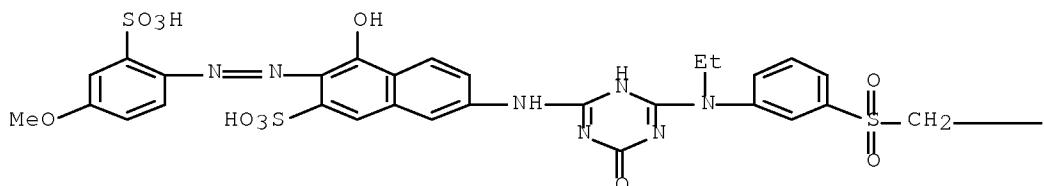
PAGE 1-B



RN 149124-58-3 HCPLUS

CN 2-Naphthalenesulfonic acid, 7-[6-[ethyl[3-[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,4-dihydro-4-oxo-1,3,5-triazin-2-yl]amino]-4-hydroxy-3-[(4-methoxy-2-sulfophenyl)azo]- (9CI) (CA INDEX NAME)

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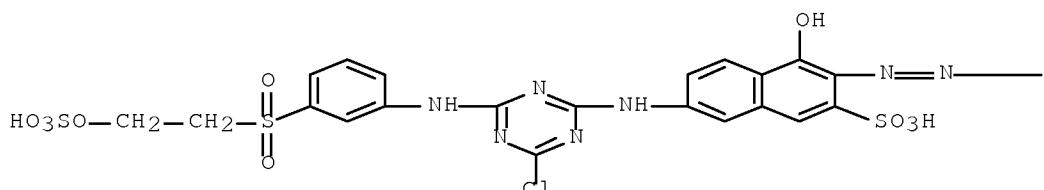
PAGE 1-B

—CH₂—OSO₃H

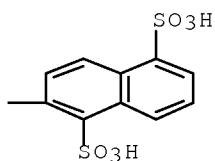
RN 149124-59-4 HCAPLUS

CN 1,5-Naphthalenedisulfonic acid, 2-[2-[6-[4-chloro-6-[3-[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]- (CA INDEX NAME)

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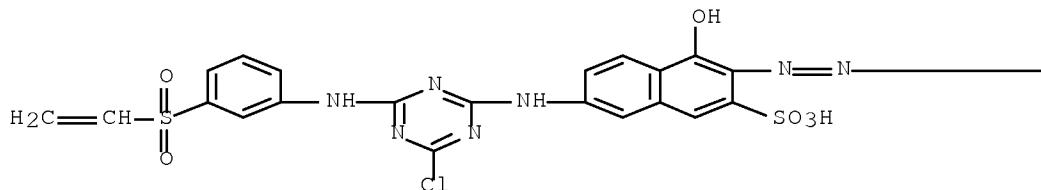
RN 149124-60-7 HCAPLUS

CN 1,5-Naphthalenedisulfonic acid, 2-[2-[6-[4-chloro-6-[3-

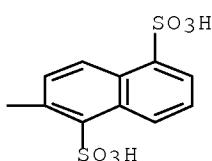
11/628659

(ethenylsulfonyl)phenyl]amino]-1,3,5-triazin-2-yl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]- (CA INDEX NAME)

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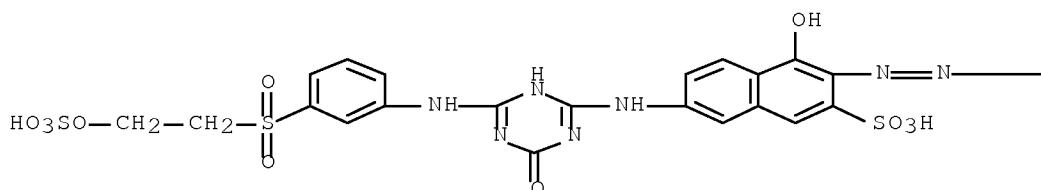
PAGE 1-B



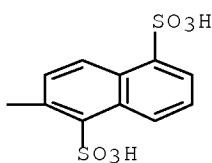
RN 149124-61-8 HCPLUS

CN 1,5-Naphthalenedisulfonic acid, 2-[2-[6-[5,6-dihydro-6-oxo-4-[3-[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-1-hydroxy-3-sulfo-2-naphthalenyl]diazenyl]- (CA INDEX NAME)

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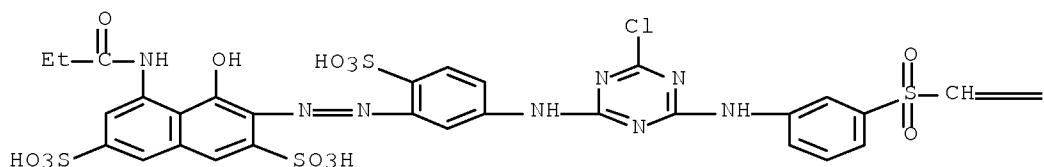
RN 149124-62-9 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 3-[2-[5-[4-chloro-6-[3-

11/628659

(ethenylsulfonyl)phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]diazenyl]-4-hydroxy-5-[(1-oxopropyl)amino]- (CA INDEX NAME)

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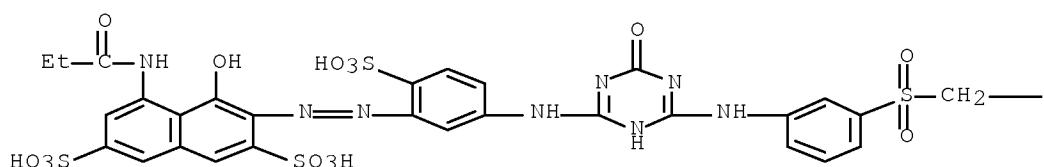
PAGE 1-B

=CH₂

RN 149124-63-0 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 3-[2-[5-[[5,6-dihydro-6-oxo-4-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]diazenyl]-4-hydroxy-5-[(1-oxopropyl)amino]- (CA INDEX NAME)

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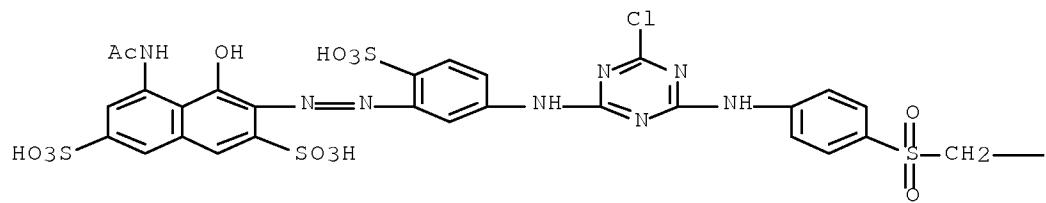
PAGE 1-B

-CH₂-OSO₃H

RN 149124-64-1 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 5-(acetylamino)-3-[2-[5-[[4-chloro-6-[[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]diazenyl]-4-hydroxy- (CA INDEX NAME)

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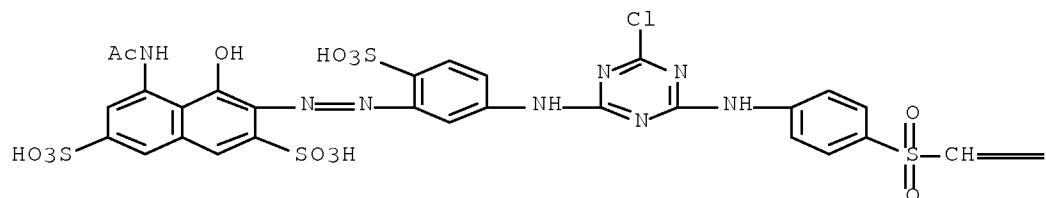
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—CH₂—OSO₃H

RN 149124-65-2 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 5-(acetylamino)-3-[2-[5-[[4-chloro-6-[[4-(ethenylsulfonyl)phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]diazenyl]-4-hydroxy- (CA INDEX NAME)

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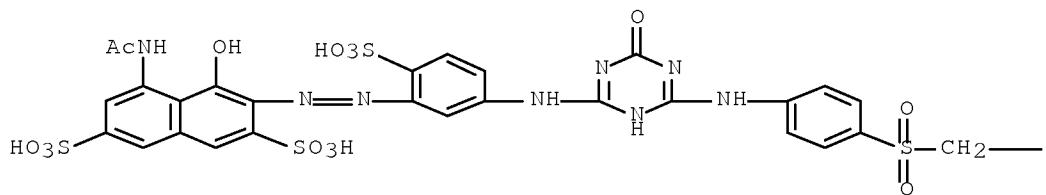


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—CH₂

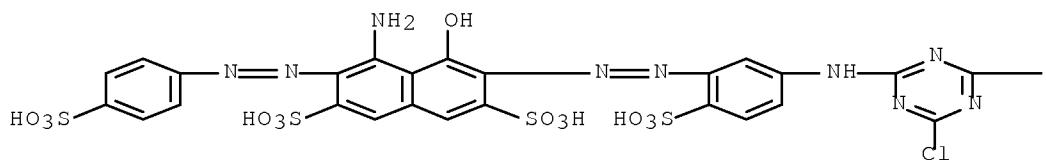
RN 149124-66-3 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 5-(acetylamino)-3-[2-[5-[[3,4-dihydro-4-oxo-6-[[4-[[2-(sulfoxyethyl)sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]diazenyl]-4-hydroxy- (CA INDEX NAME)



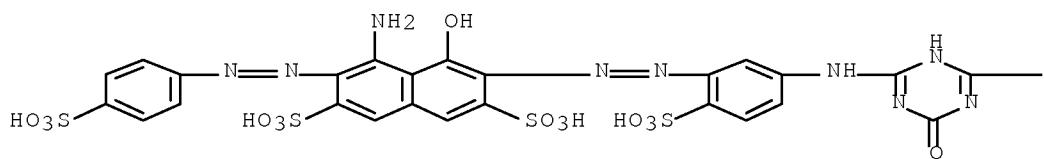
$$-\text{CH}_2-\text{OSO}_3\text{H}$$

RN 149124-67-4 HCPLUS
CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[2-[5-[[4-chloro-6-[[3-(ethenylsulfonyl)phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]diazenyl]-5-hydroxy-3-[2-(4-sulfophenyl)diazenyl]- (CA INDEX NAME)

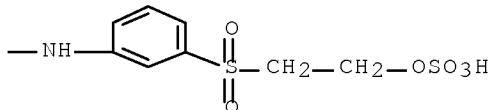


$$\text{---NH---} \begin{array}{c} \text{---} \\ | \\ \text{C}_6\text{H}_4 \end{array} \text{---} \begin{array}{c} \text{S} \\ \text{---} \\ \text{C}=\text{O} \\ \text{---} \\ \text{C}=\text{O} \end{array} \text{---} \text{CH}=\text{CH}_2$$

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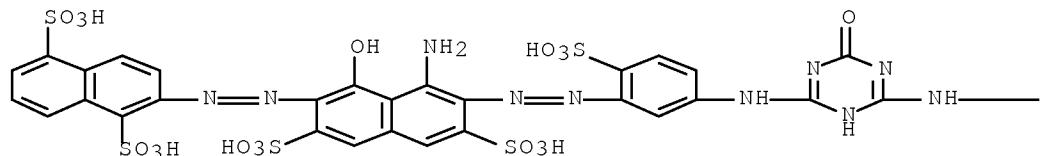
PAGE 1-B



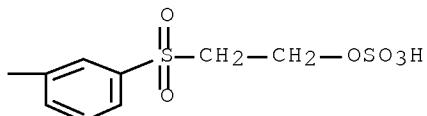
RN 149124-69-6 HCAPLUS

CN 1,5-Naphthalenedisulfonic acid, 2-[2-[8-amino-7-[2-[5-[[5,6-dihydro-6-oxo-4-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-sulfophenyl]diazenyl]-1-hydroxy-3,6-disulfo-2-naphthalenyl]diazenyl]- (CA INDEX NAME)

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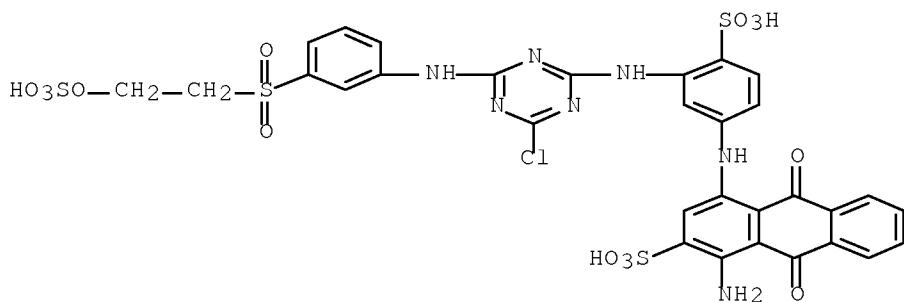


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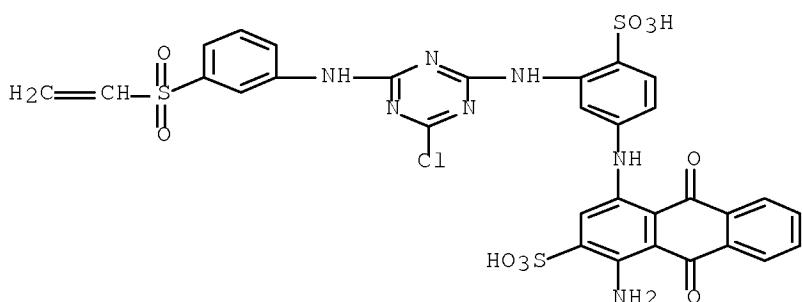
RN 149124-70-9 HCAPLUS

CN 2-Anthracenesulfonic acid, 1-amino-4-[[3-[[4-chloro-6-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-4-sulfophenyl]amino]-9,10-dihydro-9,10-dioxo- (CA INDEX NAME)



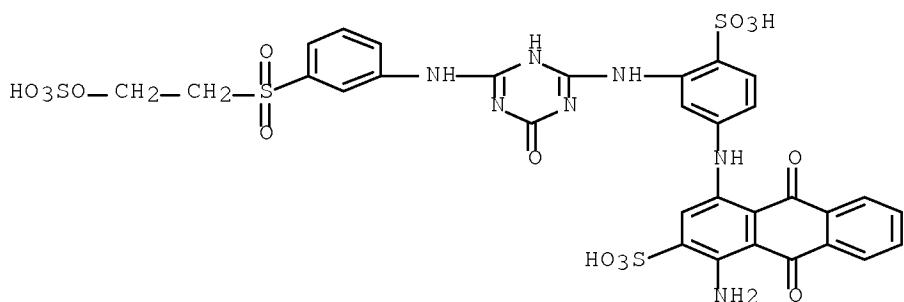
RN 149124-71-0 HCAPLUS

CN 2-Anthracenesulfonic acid, 1-amino-4-[(3-[(4-chloro-6-[(3-ethenylsulfonyl)phenyl]amino)-1,3,5-triazin-2-yl]amino)-4-sulfophenyl]amino]-9,10-dihydro-9,10-dioxo- (CA INDEX NAME)



RN 149124-72-1 HCAPLUS

CN 2-Anthracenesulfonic acid, 1-amino-4-[(3-[(3,4-dihydro-4-oxo-6-[(2-sulfoxyethyl)sulfonyl]phenyl]amino)-1,3,5-triazin-2-yl]amino)-4-sulfophenyl]amino]-9,10-dihydro-9,10-dioxo- (CA INDEX NAME)



IC ICM C09B062-503

ICS C09B062-505; C09B062-51; C09B062-513; C09B062-515; C09B062-517; C09B067-22; D06P001-384

CC 40-6 (Textiles and Fibers)

Section cross-reference(s): 41, 45
 ST reactive azo dye mixt cotton;
 leather reactive azo dye mixt
 IT Leather
 (mixed reactive azo dyes for)
 IT Textile printing
 (of cotton, mixed reactive azo dyes for)
 IT Printing, nonimpact
 (of leather, mixed reactive azo
 dyes for)
 IT Dyes, reactive
 (azo, mixed, for dyeing and printing of cotton and
 leather)
 IT 80315-16-8 85946-16-3 85946-20-9
 104256-91-9 105936-66-1 105956-68-1
 107143-06-6 109295-78-5 109295-80-9
 115662-23-2 131733-83-0 139261-22-6
 149124-57-2 149124-58-3 149124-59-4
 149124-60-7 149124-61-8 149124-62-9
 149124-63-0 149124-64-1 149124-65-2
 149124-66-3 149124-67-4 149124-68-5
 149124-69-6 149124-70-9 149124-71-0
 149124-72-1
 RL: USES (Uses)
 (mixed reactive azo dyes containing, for
 cotton and leather)

L31 ANSWER 21 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1992:22868 HCPLUS Full-text
 DOCUMENT NUMBER: 116:22868
 ORIGINAL REFERENCE NO.: 116:3999a,4002a
 TITLE: Reactive disazo dyes, their
 manufacture and use, and fabrics dyed with them
 INVENTOR(S): Gisler, Markus
 PATENT ASSIGNEE(S): Sandoz-Patent-G.m.b.H., Germany
 SOURCE: Ger. Offen., 15 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4039864	A1	19910620	DE 1990-4039864	19901213 <--
FR 2655995	A1	19910621	FR 1990-15548	19901210 <--
ES 2027868	A6	19920616	ES 1990-3192	19901213 <--
JP 04209659	A	19920731	JP 1990-419205	19901214 <--
CH 680796	A5	19921113	CH 1990-3967	19901214 <--
BR 9100449	A	19920922	BR 1991-449	19910205 <--
US 5597903	A	19970128	US 1995-470669	19950606 <--
PRIORITY APPLN. INFO.:			DE 1989-3941639	A1 19891216 <--
			US 1990-627292	B1 19901214 <--
			US 1992-909558	B1 19920706 <--
OTHER SOURCE(S):	MARPAT 116:22868			
GI				

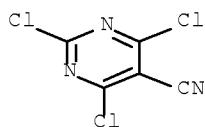


AB Disazo dyes I (X, Y = substituted benzene or naphthalene diazo component residue, ≥ 1 of which contains a $\text{SO}_2\text{CH}:\text{CH}_2$ group or precursor; Y contains a dichlorocyanopyrimidinylamino group) and their salts have good fastness properties on leather and natural and synthetic cellulosic and polyamide fibers. Thus, 4-aminophenyl 2-sulfatoethyl sulfone was diazotized and coupled with 1-amino-8-hydroxynaphthalene-3,6-disulfonic acid to give a monoazo intermediate (II). 2,4-Diaminobenzenesulfonic acid was condensed with 5-cyano-2,4,6-trichloropyrimidine and the condensate was diazotized and coupled with II to give I [sulfo group in position a; X = 4-(sulfatoethylsulfonyl)phenyl; Y = 5-(5-cyanodichloropyrimidinylamino)-2-sulfophenyl], which provided deep navy blue shades on cotton which were fast to light, moisture, and oxidation

IT 3029-64-9
 RL: USES (Uses)
 (condensation of, with diaminobenzenesulfonic acid)

RN 3029-64-9 HCPLUS

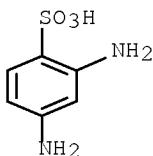
CN 5-Pyrimidinecarbonitrile, 2,4,6-trichloro- (CA INDEX NAME)



IT 88-63-1, 2,4-Diaminobenzenesulfonic acid
 RL: USES (Uses)
 (condensation of, with trichlorocyanopyrimidine)

RN 88-63-1 HCPLUS

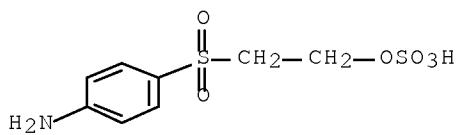
CN Benzenesulfonic acid, 2,4-diamino- (CA INDEX NAME)



IT 2494-89-5, 4-Aminophenyl 2-sulfatoethyl sulfone
 RL: USES (Uses)
 (coupling of diazotized, with aminohydroxynaphthalenedisulfonic acid)

RN 2494-89-5 HCPLUS

CN Ethanol, 2-[(4-aminophenyl)sulfonyl]-, 1-(hydrogen sulfate) (CA INDEX NAME)

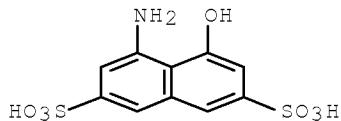


IT 90-20-0

RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling of, with diazotized aminophenyl sulfatoethyl sulfone)

RN 90-20-0 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy- (CA INDEX NAME)

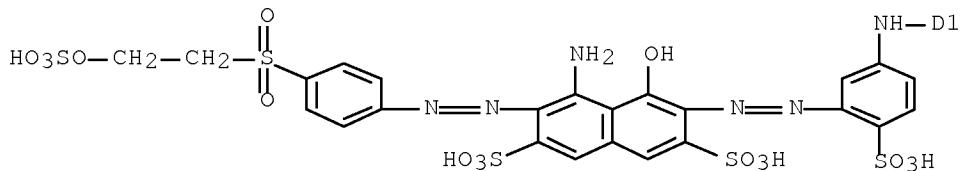
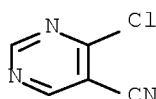


IT 138081-66-0P

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of, as navy blue dye for cotton)

RN 138081-66-0 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-6-[[5-[[2,6(or 4,6)-dichloro-5-cyano-4(or 2)-pyrimidinyl]amino]-2-sulfophenyl]azo]-5-hydroxy-3-[[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



D1—Cl

IC ICM C09B062-01

ICS C09B062-25; C09B067-22; D06P001-38; D06P003-10; D06P003-66;
D06P003-32

ICA C09B062-513; C09B062-533; C09B033-10; C09D011-02

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic

ST Sensitzers)
 Section cross-reference(s): 40, 45
 disazo reactive dye cotton;
 dichlorocyanopyrimidinylamino group reactive dye
 IT Dyeing
 Textile printing
 (of cotton, with reactive disazo dyes)
 IT Leather
 (reactive disazo dyes for, with
 dichlorocyanopyrimidinylamino groups)
 IT Polyamide fibers, miscellaneous
 RL: MSC (Miscellaneous)
 (reactive disazo dyes for, with
 dichlorocyanopyrimidinylamino groups)
 IT Dyes, reactive
 (azo, disazo, with dichlorocyanopyrimidinylamino groups, for
 leather and cellulosic and polyamide fibers)
 IT 3029-64-9
 RL: USES (Uses)
 (condensation of, with diaminobenzenesulfonic acid)
 IT 88-63-1, 2,4-Diaminobenzenesulfonic acid
 RL: USES (Uses)
 (condensation of, with trichlorocyanopyrimidine)
 IT 2494-89-5, 4-Aminophenyl 2-sulfatoethyl sulfone
 RL: USES (Uses)
 (coupling of diazotized, with aminohydroxynaphthalenedisulfonic acid)
 IT 90-20-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling of, with diazotized aminophenyl sulfatoethyl sulfone)
 IT 138081-66-0P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of, as navy blue dye for cotton)

L31 ANSWER 22 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1991:538207 HCPLUS Full-text
 DOCUMENT NUMBER: 115:138207
 ORIGINAL REFERENCE NO.: 115:23695a,23698a
 TITLE: Bifunctional reactive copper formazan
 dyes, their preparation and use
 INVENTOR(S): Lehmann, Urs; Koller, Josef
 PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
 SOURCE: Eur. Pat. Appl., 31 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 410930	A2	19910130	EP 1990-810546	19900717 <--
EP 410930	A3	19910206		
EP 410930	B1	19950419		
R: BE, CH, DE, ES, FR, GB, IT, LI				
ES 2071076	T3	19950616	ES 1990-810546	19900717 <--
US 5112958	A	19920512	US 1990-555335	19900719 <--
JP 03059079	A	19910314	JP 1990-194107	19900724 <--
PRIORITY APPLN. INFO.:			CH 1989-2761	A 19890724 <--
OTHER SOURCE(S):	MARPAT	115:138207		
GI				

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Blue dyes I (R = C1-4 alkyl, C1-4 alkoxy, halogen, CN, NO₂; X = F, Cl; Y = CH₂CH₂Cl, CH:CH₂; n = 0-2), useful for dyeing or printing of paper, leather, or textiles containing N or OH groups, also useful in the trichromic dyeing of textiles, are prepared. Thus, the Cu formazan chromophore II was dissolved in water, condensed with cyanuric chloride, and the condensate condensed with 4-(2-chloroethylsulfonyl)aniline, forming the tri-Na salt of I (Y = CH₂CH₂Cl-4, X = Cl, n = 0, sulfo group in 4 position), which dyed wool in fast blue shades.

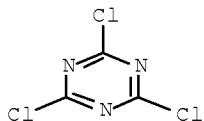
IT 108-77-0, Cyanuric chloride 675-14-9, Cyanuric fluoride

RL: USES (Uses)

(condensation of, with amines in reactive dye manufacture)

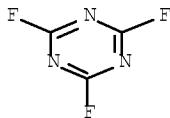
RN 108-77-0 HCAPLUS

CN 1,3,5-Triazine, 2,4,6-trichloro- (CA INDEX NAME)



RN 675-14-9 HCAPLUS

CN 1,3,5-Triazine, 2,4,6-trifluoro- (CA INDEX NAME)

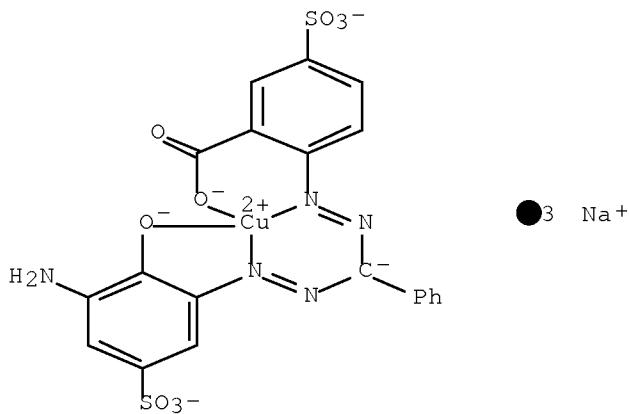


IT 60265-89-6 77743-24-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with cyanuric chloride)

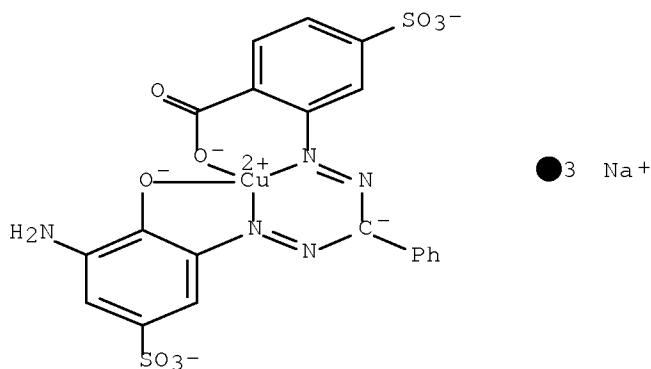
RN 60265-89-6 HCAPLUS

CN Cuprate(3-), [2-[[[(3-amino-2-(hydroxy- κ O)-5-sulfophenyl)azo- κ N₂]phenylmethyl]azo- κ N₁]-5-sulfobenzoato(5-)- κ O]⁻, trisodium (9CI) (CA INDEX NAME)



RN 77743-24-9 HCPLUS

CN Cuprate(3-), [2-[[[3-amino-2-(hydroxy- κ O)-5-sulfophenyl]azo- κ N2]phenylmethyl]azo- κ N1]-4-sulfobenzoato(5-)- κ O]-, trisodium (9CI) (CA INDEX NAME)



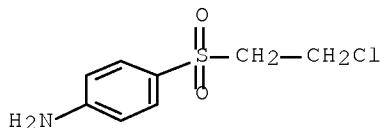
IT 20171-19-1 20171-20-4

RL: USES (Uses)

(condensation of, with halotriazines, in reactive formazan dye manufacture)

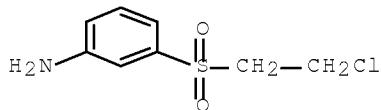
RN 20171-19-1 HCPLUS

CN Benzenamine, 4-[(2-chloroethyl)sulfonyl]- (CA INDEX NAME)



RN 20171-20-4 HCPLUS

CN Benzenamine, 3-[(2-chloroethyl)sulfonyl]- (CA INDEX NAME)



IT 135162-58-2P 135162-60-6P

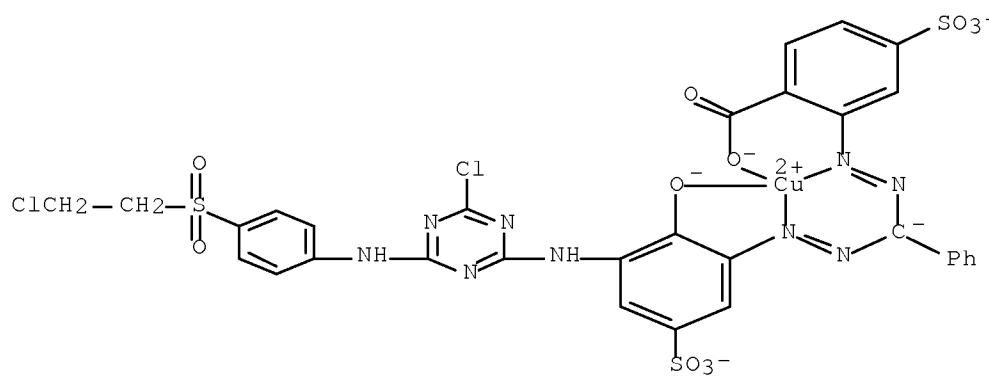
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(manufacture and dehydrochlorination of, as blue dye for wool)

RN 135162-58-2 HCPLUS

CN Cuprate(3-), [2-[[[[3-[[4-chloro-6-[[4-[(2-chloroethyl)sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-hydroxy-5-sulfophenyl]azo]phenylmethyl]azo]-4-sulfobenzoato(5-)]-, trisodium (9CI) (CA INDEX NAME)

PAGE 1-A



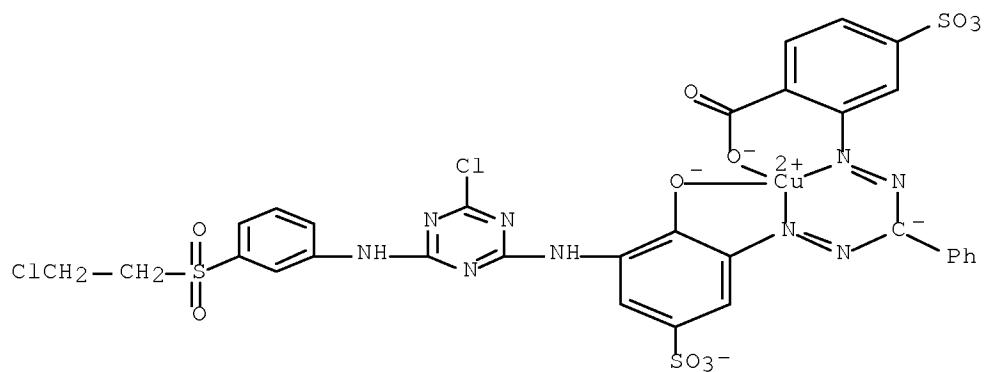
PAGE 2-A

●3 Na⁺

RN 135162-60-6 HCPLUS

CN Cuprate(3-), [2-[[[[3-[[4-chloro-5-[[3-[(2-chloroethyl)sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-hydroxy-5-sulfophenyl]azo]phenylmethyl]azo]-4-sulfobenzoato(5-)]-, trisodium (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

●3 Na⁺

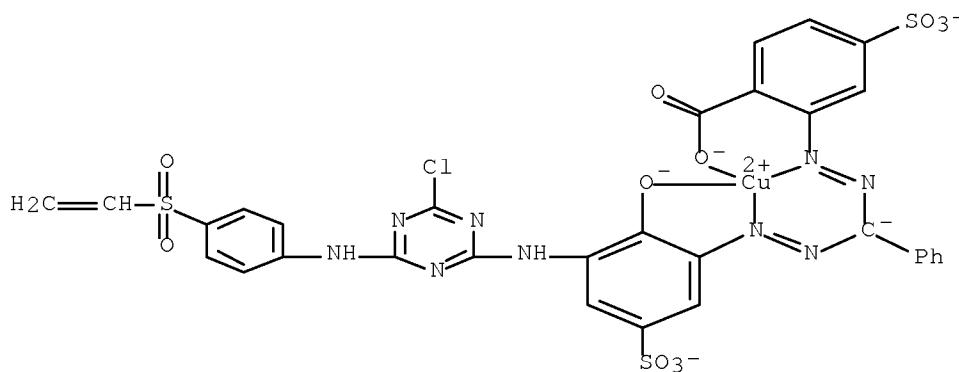
IT 135162-59-3P 135162-61-7P 135162-62-8P
 135162-63-9P 135162-64-0P 135162-65-1P
 136074-14-1P

RL: PREP (Preparation)
 (manufacture of, as blue dye for wool)

RN 135162-59-3 HCAPLUS

CN Cuprate(3-), [2-[[[3-[4-chloro-6-[[4-(ethenylsulfonyl)phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-hydroxy-5-sulfophenyl]azo]phenylmethyl]azo]-4-sulfobenzoato(5-)]-, trisodium (9CI) (CA INDEX NAME)

PAGE 1-A



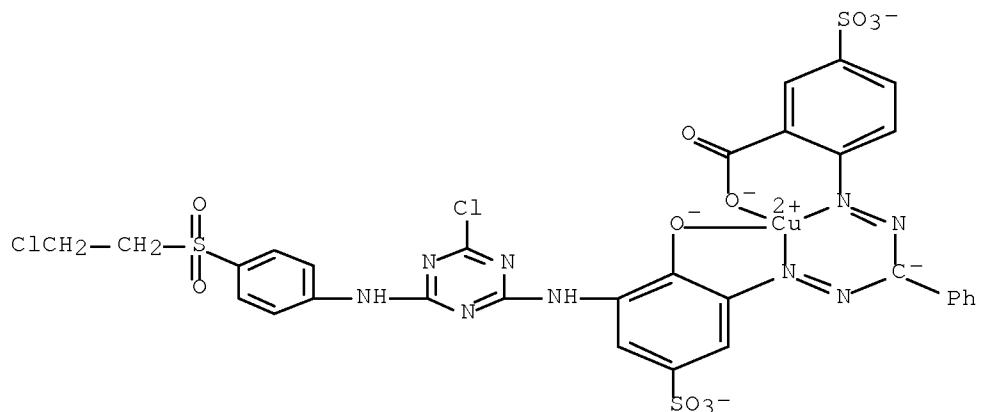
PAGE 2-A

●3 Na⁺

RN 135162-61-7 HCAPLUS

CN Cuprate(3-), [2-[[[[3-[4-chloro-5-[(4-[(2-chloroethyl)sulfonyl]phenyl)amino]-1,3,5-triazin-2-yl]amino]-2-hydroxy-5-sulfophenyl]azo]phenylmethyl]azo]-5-sulfobenzoato(5-)]-, trisodium (9CI) (CA INDEX NAME)

PAGE 1-A



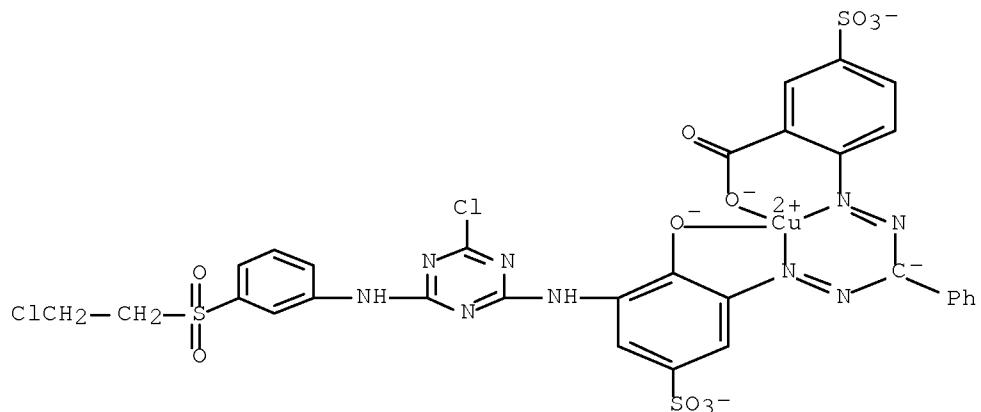
PAGE 2-A

●₃ Na⁺

RN 135162-62-8 HCAPLUS

CN Cuprate(3-), [2-[[[[3-[4-chloro-6-[(2-chloroethyl)sulfonyl]phenyl]-1,3,5-triazin-2-yl]amino]-2-hydroxy-5-sulfophenyl]azo]phenylmethyl]azo]-5-sulfobenzoato(5-)]-, trisodium (9CI) (CA INDEX NAME)

PAGE 1-A

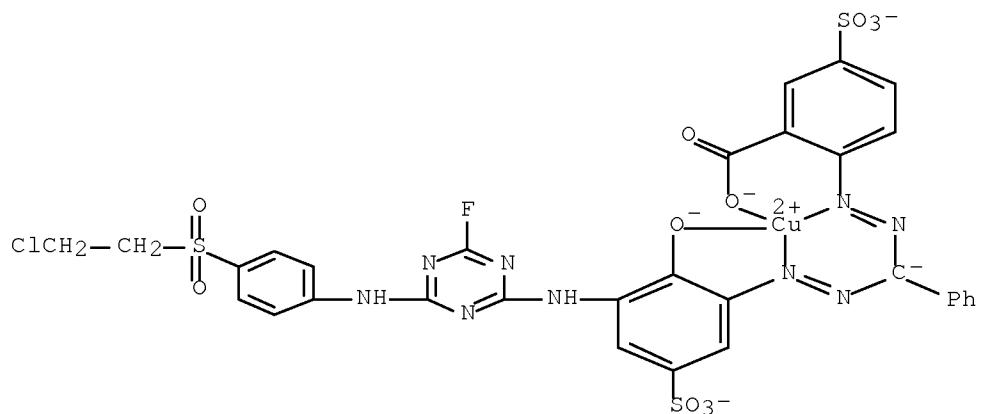


PAGE 2-A

●3 Na⁺

RN 135162-63-9 HCAPLUS
 CN Cuprate(3-), [2-[[[[3-[4-[(2-chloroethyl)sulfonyl]phenyl]amino]-6-fluoro-1,3,5-triazin-2-yl]amino]-2-hydroxy-5-sulfophenyl]azo]phenylmethyl]azo]-5-sulfobenzoato(5-)]-, trisodium (9CI) (CA INDEX NAME)

PAGE 1-A

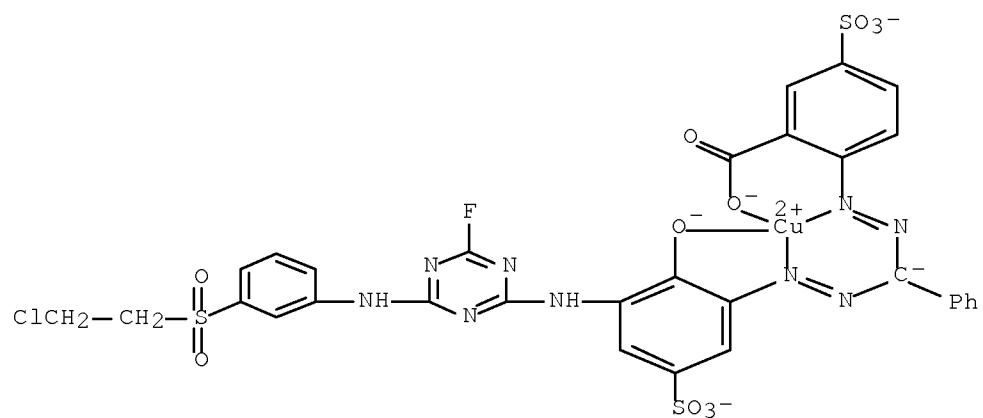


PAGE 2-A

●3 Na⁺

RN 135162-64-0 HCAPLUS
 CN Cuprate(3-), [2-[[[[3-[4-fluoro-6-[(2-chloroethyl)sulfonyl]phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-hydroxy-4-sulfophenyl]azo]phenylmethyl]azo]-5-sulfobenzoato(5-)]-, trisodium (9CI) (CA INDEX NAME)

PAGE 1-A

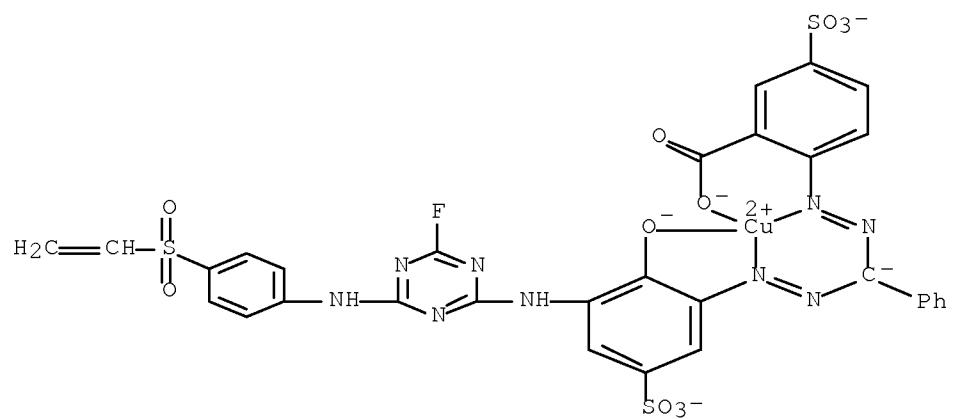


PAGE 2-A

●3 Na⁺

RN 135162-65-1 HCAPLUS
 CN Cuprate(3-), [2-[[[[3-[[6-[[4-(ethenylsulfonyl)phenyl]amino]-4-fluoro-1,3,5-triazin-2-yl]amino]-2-hydroxy-4-sulfophenyl]azophenylmethyl]azo]-5-sulfobenzoato(5-)]-, trisodium (9CI) (CA INDEX NAME)

PAGE 1-A



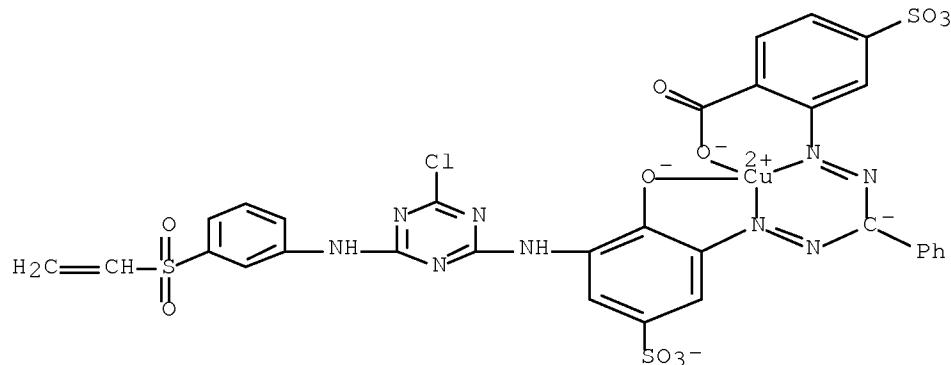
PAGE 2-A

●3 Na⁺

RN 136074-14-1 HCAPLUS

CN Cuprate(3-), [2-[[[3-[4-chloro-6-[[3-(ethenylsulfonyl)phenyl]amino]-1,3,5-triazin-2-yl]amino]-2-hydroxy-5-sulfophenyl]azo]phenylmethyl]azo]-4-sulfobenzoato(5-)]-, trisodium (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A

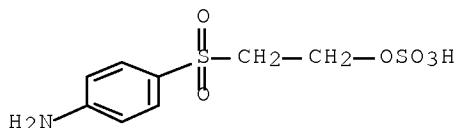
●3 Na⁺

IT 2494-89-5

RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with cyanuric fluoride, in reactive formazan dye manufacture)

RN 2494-89-5 HCAPLUS

CN Ethanol, 2-[(4-aminophenyl)sulfonyl]-, 1-(hydrogen sulfate) (CA INDEX NAME)



IC ICM C09B062-503

ICS D06P003-10; D06P001-384

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 40, 43, 45

ST bifunctional reactive copper formazan dye; wool dyeing copper formazan dye; paper dyeing copper formazan dye; leather dyeing copper formazan dye; textile printing copper formazan dye

IT Leather
Paper

11/628659

(dyes for, bifunctional reactive blue copper formazan compds. as, manufacture of)

IT Dyes, reactive
(bifunctional, copper formazans, manufacture of blue, for paper and leather and nitrogen- or hydroxyl group-containing fibers)

IT 108-77-0, Cyanuric chloride 675-14-9, Cyanuric fluoride
RL: USES (Uses)
(condensation of, with amines in reactive dye manufacture)

IT 60265-89-6 77743-24-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with cyanuric chloride)

IT 20171-19-1 20171-20-4
RL: USES (Uses)
(condensation of, with halotriazines, in reactive formazan dye manufacture)

IT 135162-58-2P 135162-60-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(manufacture and dehydrochlorination of, as blue dye for wool)

IT 135162-59-3P 135162-61-7P 135162-62-8P
135162-63-9P 135162-64-0P 135162-65-1P
136074-14-1P
RL: PREP (Preparation)
(manufacture of, as blue dye for wool)

IT 2494-89-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with cyanuric fluoride, in reactive formazan dye manufacture)

L31 ANSWER 23 OF 24 HCPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1985:97269 HCPLUS Full-text
DOCUMENT NUMBER: 102:97269
ORIGINAL REFERENCE NO.: 102:15295a,15298a
TITLE: Use of reactive dyes for dyeing of pigskin
AUTHOR(S): Shao, Yun; Zhao, Shimin
CORPORATE SOURCE: Teach. Res. Lab. Dyeing, East China Inst. Text. Eng.,
Shanghai, Peop. Rep. China
SOURCE: Pige Keji (1984), (7), 11-16
CODEN: PKKCDO; ISSN: 0253-3642

DOCUMENT TYPE: Journal

LANGUAGE: Chinese

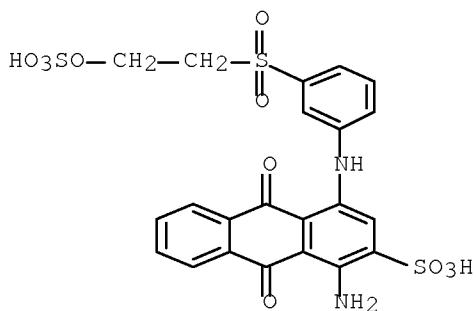
AB Reactive dyes imparted better fastness to wet rubbing in the dyeing of pigskins, compared with acid dyes. For chrome-tanned pigskins, dyeing temps. were controlled at 70-80°. For vinyl sulfone-type dyes, good results were obtained by dyeing 45 min at pH 4.5 and fixing 45 min at pH 6.5.

IT 2580-78-1 13324-20-4 70209-99-3
70416-86-3

RL: USES (Uses)
(dyeing by, of chrome-tanned pigskin)

RN 2580-78-1 HCPLUS

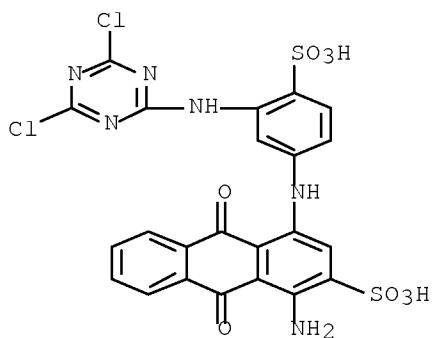
CN 2-Anthracenesulfonic acid, 1-amino-9,10-dihydro-9,10-dioxo-4-[[3-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]amino]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

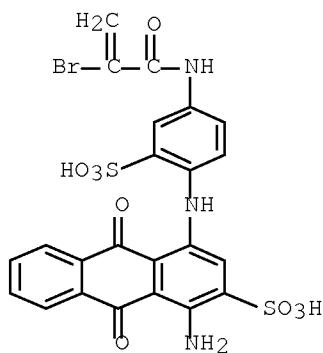
RN 13324-20-4 HCPLUS

CN 2-Anthracenesulfonic acid, 1-amino-4-[[3-[(4,6-dichloro-1,3,5-triazin-2-yl)amino]-4-sulfophenyl]amino]-9,10-dihydro-9,10-dioxo- (CA INDEX NAME)



RN 70209-99-3 HCPLUS

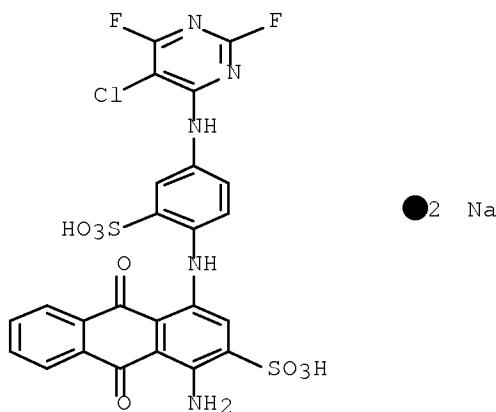
CN 2-Anthracenesulfonic acid, 1-amino-4-[[4-[(2-bromo-1-oxo-2-propen-1-yl)amino]-2-sulfophenyl]amino]-9,10-dihydro-9,10-dioxo-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 70416-86-3 HCPLUS

CN 2-Anthracenesulfonic acid, 1-amino-4-[(4-[(5-chloro-2,6-difluoro-4-pyrimidinyl)amino]-2-sulfophenyl)amino]-9,10-dihydro-9,10-dioxo-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

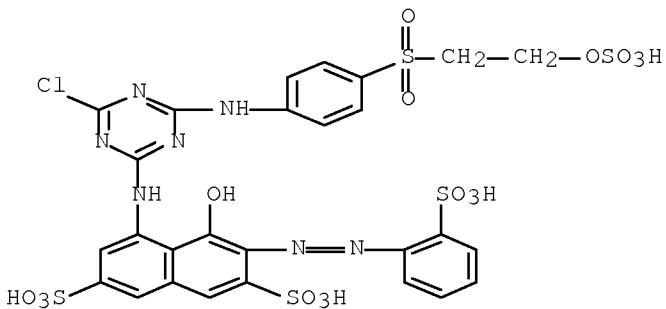
IT 23354-53-2

RL: USES (Uses)

(dyeing of pigskin by)

RN 23354-53-2 HCPLUS

CN 2,7-Naphthalenedisulfonic acid, 5-[(4-chloro-6-[(4-[(2-sulfophenoxy)ethyl]sulfonyl]phenyl)amino]-1,3,5-triazin-2-yl]amino]-4-hydroxy-3-[2-(2-sulfophenyl)diazenyl]-, sodium salt (1:4) (CA INDEX NAME)



●4 Na

CC 45-2 (Industrial Organic Chemicals, Leather, Fats, and Waxes)
 ST dyeing pigskin reactive dye
 IT Process optimization
 (of dyeing of pigskins, with reactive dyes
)
 IT Leather
 (pigskin, dyeing of, with reactive dyes)
 IT Dyeing
 (reactive, of pigskins)
 IT 2580-78-1 12226-38-9 13324-20-4 70209-99-3
 70416-86-3 91254-15-8 95145-55-4 95145-60-1
 RL: USES (Uses)
 (dyeing by, of chrome-tanned pigskin)
 IT 23354-53-2 95145-51-0 95145-53-2 95145-56-5 95145-58-7
 95145-59-8
 RL: USES (Uses)
 (dyeing of pigskin by)

L31 ANSWER 24 OF 24 HCAPLUS COPYRIGHT 2009 ACS on STN
 ACCESSION NUMBER: 1982:425511 HCAPLUS Full-text
 DOCUMENT NUMBER: 97:25511
 ORIGINAL REFERENCE NO.: 97:4459a, 4462a
 TITLE: Dyeing of leather powder, fibers, and
 articles flocked with them
 PATENT ASSIGNEE(S): Iizuka, Katsuo, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 3 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57047982	A	19820319	JP 1980-121342	19800901 <--

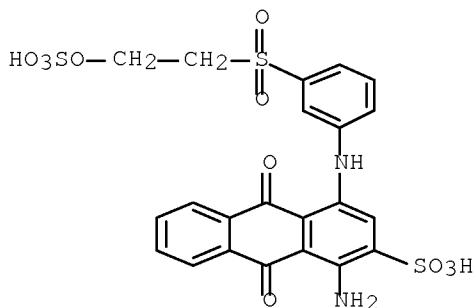
PRIORITY APPLN. INFO.: JP 1980-121342 19800901 <--

AB Dyeing with reactive dyes at pH 9.0-13.5 gives good fastness of color. Thus,
 a flocked article was treated with 1% aqueous glutaraldehyde and dyed with
 C.I. Reactive Blue 19 [2580-78-1] at dye concentration 2%, 40°, and pH 10.5
 for 60 min to give dye fastness ranking 5, compared with 2 for dyeing powdered
 leather with an acidic dye at dye concentration 2%, 60°, and pH 40 for 50 min.
 IT 2580-78-1 17095-24-8

RL: USES (Uses)
(dyeing by, of powdered leather)

RN 2580-78-1 HCAPLUS

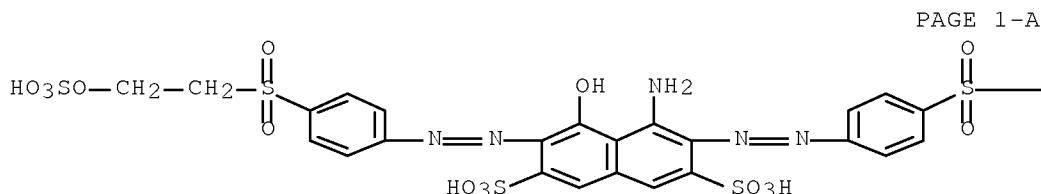
CN 2-Anthracenesulfonic acid, 1-amino-9,10-dihydro-9,10-dioxo-4-[[3-[[2- (sulfooxy)ethyl]sulfonyl]phenyl]amino]-, sodium salt (1:2) (CA INDEX NAME)



●2 Na

RN 17095-24-8 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid, 4-amino-5-hydroxy-3,6-bis[2-[4-[[2- (sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]-, sodium salt (1:4) (CA INDEX NAME)



●4 Na

PAGE 1-B

—CH₂—CH₂—OSO₃H

IC D06P003-32

CC 45-2 (Industrial Organic Chemicals, Leather, Fats, and Waxes)

ST dye reactive powd leather; fiber

leather reactive dye; flocked article

reactive dye

IT Leather

11/628659

(dyeing of powdered, with reactive dyes)

IT Flocks
(powdered leather, dyeing of, with reactive
dyes)

IT Dyeing
(reactive, of powdered leather)

IT 2580-78-1 12225-34-2 17095-24-8 51811-46-2
RL: USES (Uses)
(dyeing by, of powdered leather)

11/628659

***** SEARCH HISTORY *****

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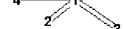
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E US20070234488/PN

L1 1 SEA ABB=ON PLU=ON US20070234488/PN

FILE 'REGISTRY' ENTERED AT 07:47:21 ON 17 APR 2009
L2 STRUCTURE uploaded
D

Uploading L2.str



chain nodes :

1 2 3 4 5 6 7 8

ring nodes :

12 13 14 15 16 17

chain bonds :

1-2 1-3 1-4 5-6 7-8

ring bonds :

12-13 12-17 13-14 14-15 15-16 16-17

exact/norm bonds :

1-2 1-3 1-4

exact bonds :

5-6 7-8

normalized bonds :

12-13 12-17 13-14 14-15 15-16 16-17

G1:[*1], [*2]

Match level :

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13:Atom 14:Atom 15:Atom 16:Atom 17:Atom

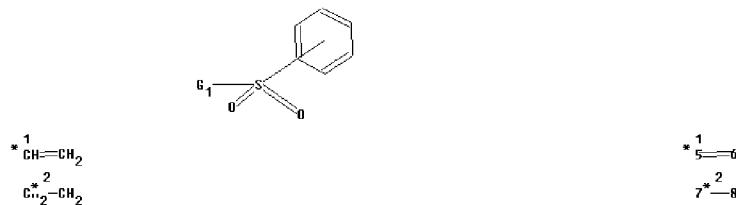
L3 50 SEA SSS SAM L2

L4 320388 SEA SSS FUL L2

SAVE TEMP L4 HAM659REGL2/A

L5 STRUCTURE UPLOADED
D

Uploading L3.str



```

chain nodes :
1 2 3 4 5 6 7 8
ring nodes :
12 13 14 15 16 17
chain bonds :
1-2 1-3 1-4 5-6 7-8
ring bonds :
12-13 12-17 13-14 14-15 15-16 16-17
exact/norm bonds :
1-2 1-3 1-4
exact bonds :
5-6 7-8
normalized bonds :
12-13 12-17 13-14 14-15 15-16 16-17

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G1: [*1], [*2]

Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 12:CLASS
13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom

L6 50 SEA SUB=L4 SSS SAM L5
L7 81379 SEA SUB=L4 SSS FUL L5
SAVE TEMP L7 HAM659REGL3/A

FILE 'HCAPLUS' ENTERED AT 07:54:12 ON 17 APR 2009

L8 15842 SEA ABB=ON PLU=ON L7
L9 106 SEA ABB=ON PLU=ON L8 AND 45/SC, SX
E LEATHER/CT
E E3+ALL

L10 25967 SEA ABB=ON PLU=ON LEATHER+OLD, UF/CT
L11 52 SEA ABB=ON PLU=ON L9 AND L10
E DYES/CT
E E3+ALL
E E54+ALL

L12 6352 SEA ABB=ON PLU=ON "REACTIVE DYES"+OLD/CT

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L13 67221 SEA ABB=ON PLU=ON (DYE# OR DYEING#) (2A) (REACT? OR AZO? OR POLYAZO?)
L14 20 SEA ABB=ON PLU=ON L11 AND L12
L15 50 SEA ABB=ON PLU=ON L11 AND L13
L16 50 SEA ABB=ON PLU=ON L15 AND L10
L17 50 SEA ABB=ON PLU=ON L15 AND (LEATHER?)
L18 50 SEA ABB=ON PLU=ON L16 OR L17
L19 47 SEA ABB=ON PLU=ON L18 AND (AY<2005 OR PY<2005 OR PRY<2005)
SEL RN L19

FILE 'STNGUIDE' ENTERED AT 08:05:06 ON 17 APR 2009

FILE 'HCAPLUS' ENTERED AT 08:07:04 ON 17 APR 2009

L20 47 SEA ABB=ON PLU=ON L19 (3A) (REACT? OR AZO? OR POLYAZO?)
E REACTIVE DYEING/CT
E E3+ALL
L21 4291 SEA ABB=ON PLU=ON "REACTIVE DYEING"+OLD/CT
L22 7828 SEA ABB=ON PLU=ON REACTIVE (L) DYEING
E TANNING/CT
E E4+ALL
L23 11591 SEA ABB=ON PLU=ON "TANNING (CURING) "+OLD/CT
L24 15 SEA ABB=ON PLU=ON L19 AND L21
L25 24 SEA ABB=ON PLU=ON L19 AND L22
L26 24 SEA ABB=ON PLU=ON L24 OR L25
SAVE TEMP L26 HAM659HCA/A
SEL RN L26

FILE 'STNGUIDE' ENTERED AT 08:11:34 ON 17 APR 2009

FILE 'REGISTRY' ENTERED AT 08:13:20 ON 17 APR 2009

L27 370 SEA ABB=ON PLU=ON (2494-89-5/BI OR 17095-24-8/BI OR 108-77-0/
BI OR 2580-78-1/BI OR 2494-88-4/BI OR 25711-72-2/BI OR
88-63-1/BI OR 90-20-0/BI OR 108-45-2/BI OR 110-16-7/BI OR
110-17-8/BI OR 145017-98-7/BI OR 174491-68-0/BI OR 3029-64-9/BI
OR 41261-80-7/BI OR 59-67-6/BI OR 675-14-9/BI OR 68-11-1/BI
OR 6915-15-7/BI OR 697-83-6/BI OR 71902-16-4/BI OR 77-92-9/BI
OR 10139-51-2/BI OR 102-01-2/BI OR 103-69-5/BI OR 104256-91-9/B
I OR 105936-66-1/BI OR 105956-68-1/BI OR 106-50-3/BI OR
106003-92-3/BI OR 1064-48-8/BI OR 107-15-3/BI OR 107143-06-6/BI
OR 108-05-4/BI OR 108-31-6/BI OR 108-46-3/BI OR 109-01-3/BI
OR 109-55-7/BI OR 109-76-2/BI OR 109295-78-5/BI OR 109295-80-9/
BI OR 110-60-1/BI OR 110-85-0/BI OR 110-91-8/BI OR 1102416-75-0
/BI OR 1102416-76-1/BI OR 1102416-77-2/BI OR 1102416-78-3/BI
OR 1118-68-9/BI OR 112-34-5/BI OR 115662-23-2/BI OR 115682-09-2
/BI OR 118-03-6/BI OR 118739-29-0/BI OR 119-18-6/BI OR
119-70-0/BI OR 121-57-3/BI OR 12217-14-0/BI OR 12217-18-4/BI
OR 12218-96-1/BI OR 12218-97-2/BI OR 12218-98-3/BI OR 12219-09-
9/BI OR 12224-60-1/BI OR 12225-34-2/BI OR 12226-38-9/BI OR
12236-86-1/BI OR 12238-86-7/BI OR 123-81-9/BI OR 124-09-4/BI
OR 124363-59-3/BI OR 131733-83-0/BI OR 1326-82-5/BI OR
1326-83-6/BI OR 13269-73-3/BI OR 13324-20-4/BI OR 135151-05-2/B
I OR 135162-58-2/BI OR 135162-59-3/BI OR 135162-60-6/BI OR
135162-61-7/BI OR 135162-62-8/BI OR 135162-63-9/BI OR 135162-64
-0/BI OR 135162-65-1/BI OR 136074-14-1/BI OR 138081-66-0/BI OR
139261-22-6/BI OR 140876-11-5/BI OR 140876-15-9/BI OR 142279-62
-7/BI OR 143354-19-2/BI OR 144-55-8/BI OR 144637-34-3/BI OR
146578-98-5/BI OR 147-81-9/BI OR 149124-57-2/BI OR 149124-58-3/
BI OR 149124-59-4/BI OR 149124-60-7/BI OR 149124-61-8/BI OR
149124-62-9/BI OR 149124-63-0/BI OR 149124-64-1/BI OR 149124-65
-2/BI OR 149124-66-3/BI OR 149124-67-4/B

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L28 267 SEA ABB=ON PLU=ON L27 AND N/ELS

FILE 'HCAPLUS' ENTERED AT 08:14:20 ON 17 APR 2009

L29 209186 SEA ABB=ON PLU=ON L28

L30 24 SEA ABB=ON PLU=ON L26 AND L29

L31 24 SEA ABB=ON PLU=ON L26 OR L30

SAVE TEMP L31 HAM659HCAP/A

FILE 'STNGUIDE' ENTERED AT 08:17:26 ON 17 APR 2009

D QUE L31

FILE 'HCAPLUS' ENTERED AT 08:18:47 ON 17 APR 2009

D L31 1-24 IBIB ABS HITSTR HITIND

FILE 'STNGUIDE' ENTERED AT 08:19:21 ON 17 APR 2009